14

INTER-CONNECTION PACKAGING DEVICES & ACCESSORIES

AMP offers the industry's most reliable and diversified line of printed circuit board interconnection devices, component receptacles and special electronic packaging products.

Modular systems for electrical/electronic circuit interconnection 14-3
AMPMODU Interconnection System

Locking Clip Connector 14-89
AMPMODU Locking Clip Connector

Commercial Interconnection System 14-97

Dual in-line Package (DIP) Sockets, Strip Receptacles and Substrate Sockets 14-104

Low Profile, 42 position, leaded substrate connector. 14-120

Integrated circuit receptacles 14-122

Dual In-Line Package (DIP) and transistor receptacles 14-126

Miniature spring sockets for component mounting . . 14-128

Reusable Component Test Receptacles for solderless component insertion 14-135

Chevron-shaped contact connectors for maximum packaging density 14-137

Printed circuit board disconnects 14-143

Printed circuit board receptacle 14-146

Printed circuit board fillets 14-148

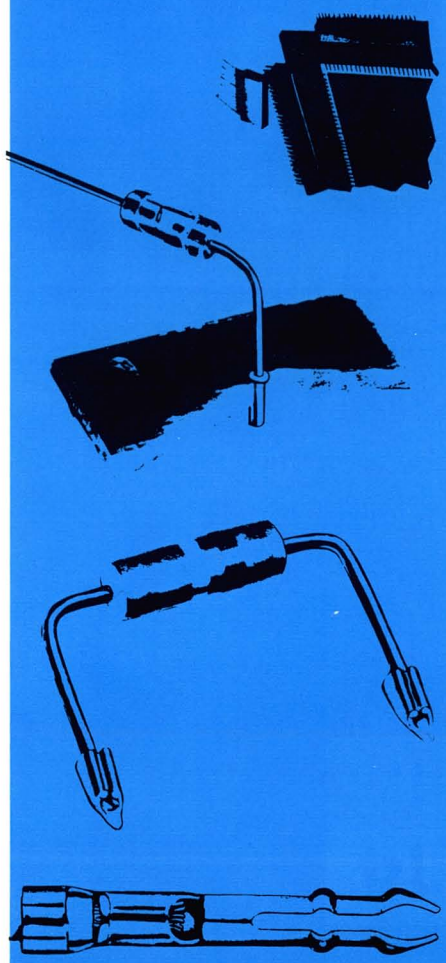
Special terminals for component-to-board mounting. 14-150
CIRCUITIP Terminals

Single lead terminals for lead-to-board soldering and single lead connect/disconnect terminals for slotted board edges 14-152
AMP-IN and AMP EDGE Single Lead Printed Circuit Terminals

Test Probe receptacles 14-155

Component module clip 14-157

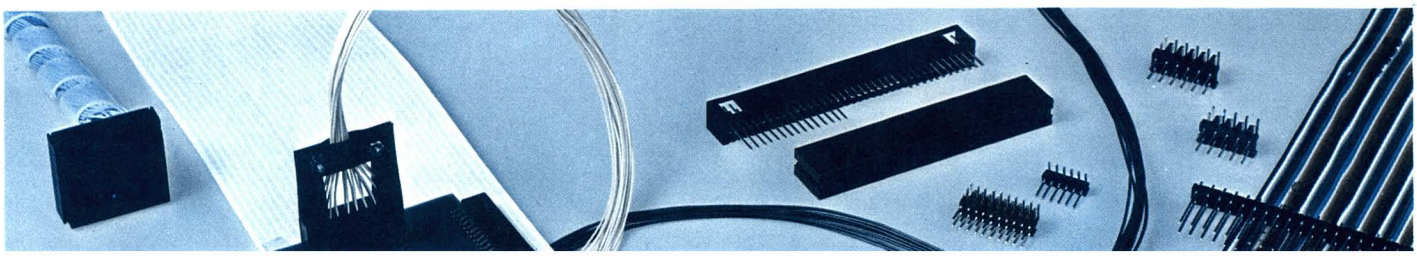
Miniature single lead terminals for lead-to-board soldering 14-159
Miniature AMP-IN Terminals



AMP 14

Interconnection Packaging Devices and Accessories

AMPMODU INTERCONNECTION SYSTEM

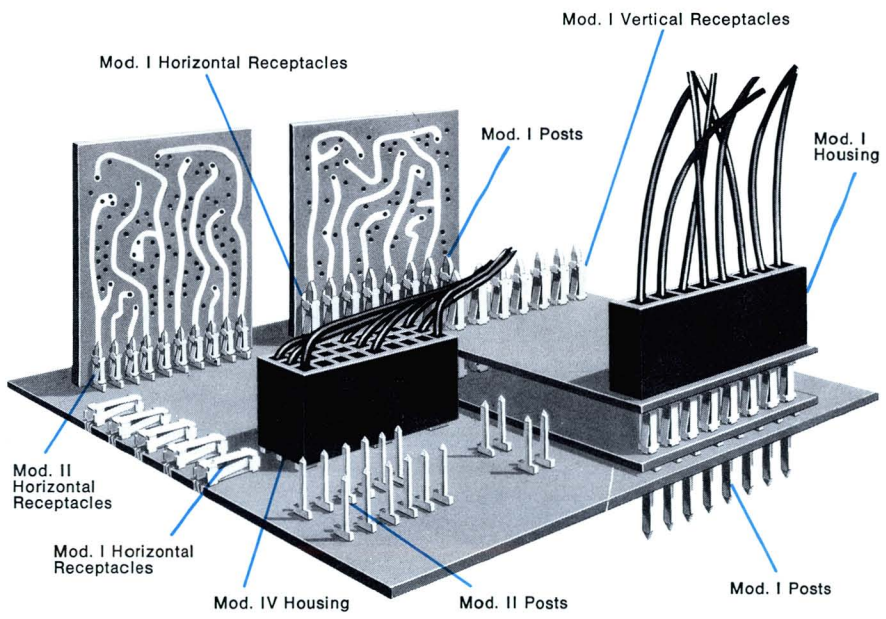


AMPMODU Interconnection System

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

Introduction

RECOGNIZED UNDER THE COMPONENT RECOGNITION PROGRAM OF UNDERWRITERS' LABORATORIES, INC. ELECTRICAL FILE E28476



Today's computers, home entertainment centers and communication devices use scores of individual electronic components. In such complex equipment, these components are mounted on modules and have to be logically and reliably interconnected.

The AMPMODU Interconnection System provides these interconnections with a unique modular concept utilizing precision formed receptacles and mating posts.

AMPMODU receptacles and posts categorically fall into four general classifications:

Mod. I — .031 x .062 [0.79 x 1.57] posts and mating receptacles

Mod. II — .025 x .025 [0.64 x 0.64] posts and mating receptacles

Mod. III — High pressure receptacles to mate with .025 x .025 [0.64 x 0.64] posts

Mod. IV — Short version of Mod. II receptacles to mate with .025 x .025 [0.64 x 0.64] posts

Board mount receptacles are available in both Mod. I and Mod. II classes. They can be applied directly to module cards for 90° mating with posts on interconnecting board or grid panels, or can be applied to module cards with the mating axis perpendicular to the card surface. This permits multiple stacking of modular cards on an interconnecting board.

Other receptacle designs offered by AMP's versatile interconnection family include crimp snap-in versions for terminating individual round wire, "no strip" contacts for staking onto flexible flat conductors and receptacles with solder tabs.

Where increased mechanical or dielectric properties are required or where density requirements dictate the use of multiple rows of terminations, receptacles are installed in housings. These housings are available for both 90° and parallel card applications. Wire crimp receptacles also are installed in multiple cavity housings which are available in a wide variety of sizes and configurations.

The AMP .031 x .062 [0.79 x 1.57] posts may be applied as feed-thru types or used with nylon housings as printed wiring terminations. AMPMODU .025 x .025 [0.64 x 0.64] and .022 x .036 [0.56 x 0.91] feed-thru wiring posts may be staked directly into plastic printed wiring boards and soldered, or used with nylon insulators in metal chassis and panels. Assembled aluminum wiring panels complement the AMPMODU product line.

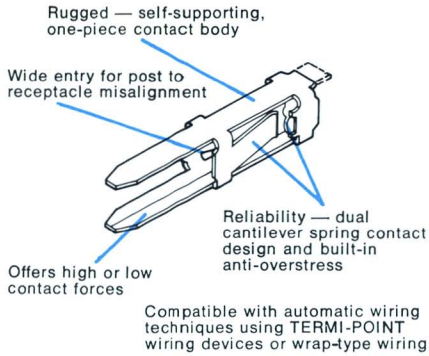
Specifications subject to change. Consult AMP Incorporated for latest design specifications.

AMPMODU Interconnection System

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

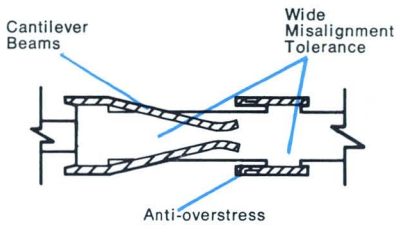
The AMPMODU receptacle cross-section is primarily rectangular, with rounded corners. Two integral cantilever beams contact the mating square or rectangular male posts. Deflection of these spring members is limited by anti-overstress and excessive permanent deformation is prevented. This feature allows a wide range for tolerance of mis-alignment of mating contacts.

The configuration of the receptacle completely encloses the spring members preventing damage during handling and assembly and makes the system compatible with auto-matic application techniques. This design also permits the use of the receptacles without housings or encapsulation.

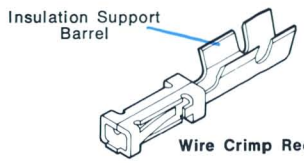


Compatible with automatic wiring techniques using TERMI-POINT wiring devices or wrap-type wiring

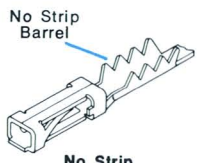
Offers low per line cost. Automation — female or male contacts can be staked to boards at speeds of 1,800 per hour per applicator



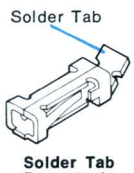
Other Receptacle Types Available



Wire Crimp Receptacle



No Strip Receptacle



Solder Tab Receptacle

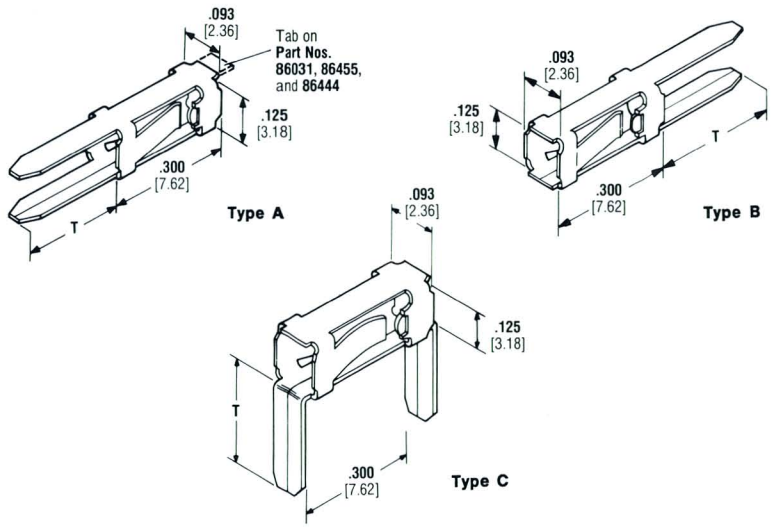
Mod. I — .031 x .062 [0.79 x 1.57] Receptacles

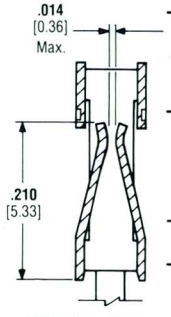
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

Board Mount Receptacles

Material: Phosphor Bronze

Receptacle Contact Styles

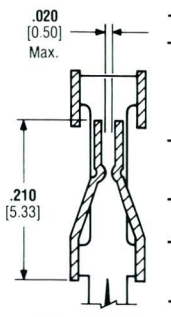




(AMP Product Specification Number 108-9006)

STANDARD PRESSURE RECEPTACLES

Board Thickness (Max.)	T Dim.	Finish	Part No.—Rectangular Hole				Part No.—Round Hole					
			Type A		Type B		Type A		Type B		Type C	
			(Strip Form*)	(Loose Piece)	(Strip Form*)	(Loose Piece)	(Strip Form*)	(Loose Piece)	(Strip Form*)	(Loose Piece)	(Strip Form*)	(Loose Piece)
1/16 1.58	.112 2.84	Gold/Nickel[1]	85488-5	85423-2	85489-5	85424-2	—	—	—	—	—	—
		Tin	85488-6	85423-3	85489-6	85424-3	86477-3	86480-3	87003-2	87105-2	—	—
		Gold/Nickel[2]	85488-7	85423-4	85489-7	85424-4	86477-2	86480-2	87003-1	87105-1	—	—
		Gold/Nickel[3]	85488-8	85423-5	—	—	86477-1	86480-1	—	—	—	—
1/16 1.58	.120 3.05	Tin	86031-1	—	—	—	86455-1	—	—	—	—	—
3/32 2.39	.145 3.68	Gold/Nickel[1]	85485-5	85491-2	85486-5	85492-2	—	—	—	—	85487-2	85493-2
		Tin	85485-6	85491-3	85486-6	85492-3	86465-2	86466-2	87004-2	87508-2	85487-3	85493-3
		Gold/Nickel[2]	85485-7	85491-4	85486-7	85492-4	—	—	87004-1	87508-1	85487-4	85493-4
		Gold/Nickel[3]	85485-8	85491-5	—	—	86465-1	86466-1	—	—	85487-5	85493-5



(AMP Product Specification Number 108-9006)

HIGH PRESSURE RECEPTACLES

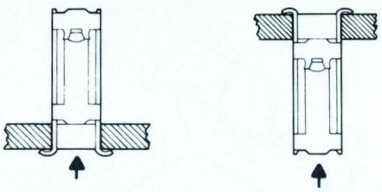
Board Thickness (Max.)	T Dim.	Finish	Part No.—Rectangular Hole				Part No.—Round Hole					
			Type A		Type B		Type A		Type B		Type C	
			(Strip Form*)	(Loose Piece)	(Strip Form*)	(Loose Piece)	(Strip Form*)	(Loose Piece)	(Strip Form*)	(Loose Piece)	(Strip Form*)	(Loose Piece)
1/16 1.58	.112 2.84	Tin	86442-1	86443-1	86448-1	86449-1	—	—	—	—	—	—
		Gold/Nickel[3]	—	—	—	—	87316-1	87509-1	—	—	—	—
1/16 1.58	.120 3.05	Tin	86444-1	—	—	—	—	—	—	—	—	—
3/32 2.39	.145 3.68	Gold/Nickel[1]	—	—	—	—	—	—	—	—	86432-4	86434-4
		Tin	86446-1	86447-1	86433-1	86435-1	—	—	—	—	86432-1	86434-1

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2]Gold flash over .000050 [0.00127] nickel on entire receptacle, .000030 [0.00076] gold on contact area.
[3].000015 [0.00038] gold over .000050 [0.00127] nickel.
*Receptacles are reeled for miniature applicator.

Mod. I — .031 x .062 [0.79 x 1.57] Receptacles (Cont'd.)

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

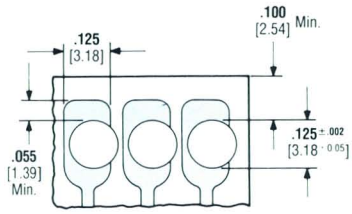
Vertical Board Mount Receptacles



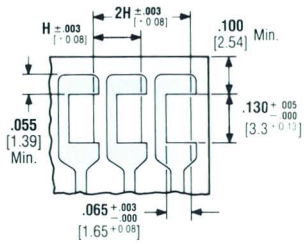
Post Entry Type A **Post Entry Type B**

Mates with .031 x .062 [0.79 x 1.57] Post

Recommended Board Layouts



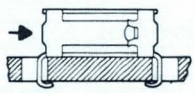
Round Hole



Rectangular Hole

H—Receptacle centers may vary depending on requirements. Minimum nominal centerline spacing between adjacent receptacles is .125 [3.18]; ±.003 [±0.08] tolerances not to accumulate over length of board.
For solder mask, see AMP I.S. 7411.

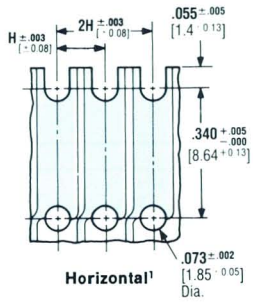
Horizontal Board Mount Receptacles



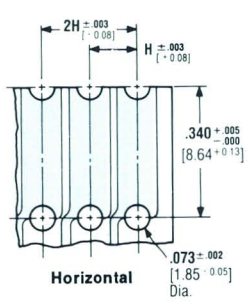
Post Entry Type C

Mates with .031 x .062 [0.79 x 1.57] Post

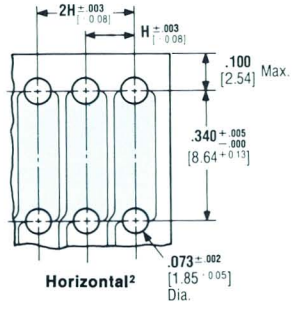
Recommended Board Layouts



Horizontal[1]



Horizontal



Horizontal[2]

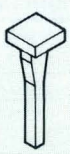
Post Entry Type C

H—Receptacle centers may vary depending on requirements. Minimum nominal centerline spacing between adjacent receptacles is .125 [3.18]; ±.003 [±0.08] tolerances not to accumulate over length of board.

[1]This configuration recommended for use with **Post No. 86147.**
[2]This configuration may not be used with **Post No. 86147.**

Note: Drawings depict normal use of the contact in a one- or two-sided printed circuit board. When using plated thru-holes, refer to AMP Engineering Report ER-001 and I.S. 7411.
For solder mask, see AMP I.S. 7411.

Keying Plug



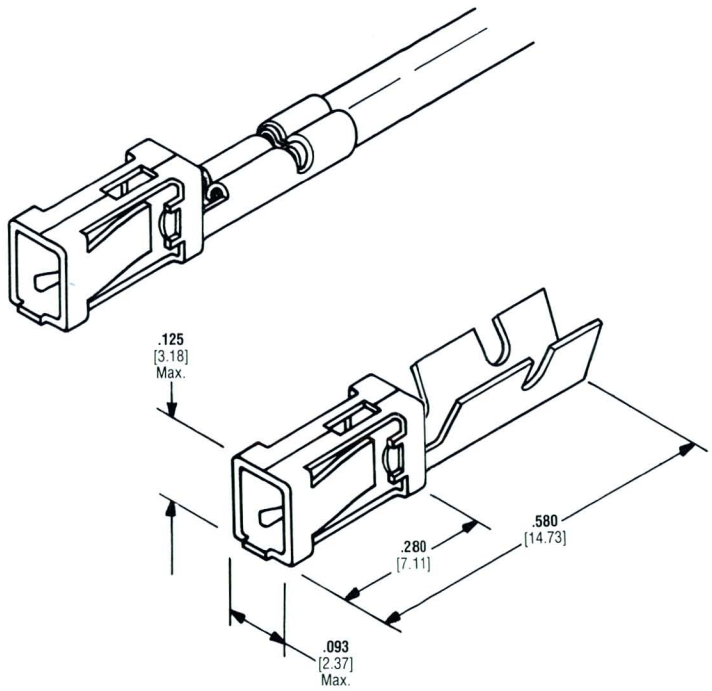
Part No. 86181-2
Use in Mod. I
Board Mount Contacts

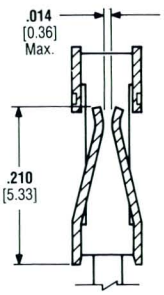
Mod. I — .031 x .062 [0.79 x 1.57] Receptacles (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

Crimp Snap-In Receptacles

Material: Phosphor Bronze

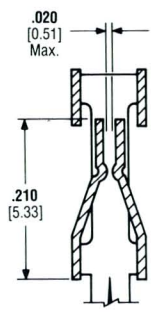




(AMP Product Specification Number 108-9006)

STANDARD PRESSURE RECEPTACLES

Wire Size Range AWG	Wire Size Range [mm²]	Ins. Dia. Range	Finish	Part Numbers (Strip Form*)	Part Numbers (Loose Piece)	Crimping Tool No.
22-18	0.3-0.9	**.073-.090** 1.85-2.29	Pre-Tin	87023-1	87026-1	90274-2
			Gold/Nickel[1]	87023-2	87026-2	
			Br. Tin/Nickel[2]	87023-3	87026-3	
26-22	0.12-0.4	**.059-.073** 1.50-1.85	Pre-Tin	87401-2	87402-1	90328-1
			Br. Tin/Nickel[2]	87401-3	87402-2	



(AMP Product Specification Number 108-9006)

HIGH PRESSURE RECEPTACLES

Wire Size Range AWG	Wire Size Range [mm²]	Ins. Dia. Range	Finish	Part Numbers (Strip Form*)	Part Numbers (Loose Piece)	Crimping No. Tool
22-18	0.3-0.9	**.073-.090** 1.85-2.29	Pre-Tin	87024-1	87027-1	90274-2
			Gold/Nickel[1]	87024-3	87027-3	
			Br. Tin/Nickel[2]	87024-4	87027-4	
26-22	0.12-0.4	**.059-.073** 1.50-1.85	Pre-Tin	87337-1	87338-1	90328-1
			Br. Tin/Nickel[2]	87337-2	87338-2	

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel.
*Receptacles are reeled for miniature applicator.

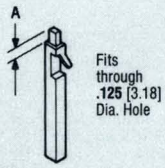
Extraction Tool No. 91065-1.

Mod. I — .031 x .062 [0.79 x 1.57] Receptacle Housings

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

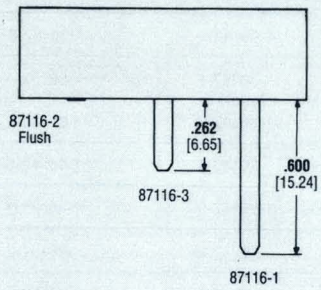
Keying Plugs

Material: Natural Color Nylon



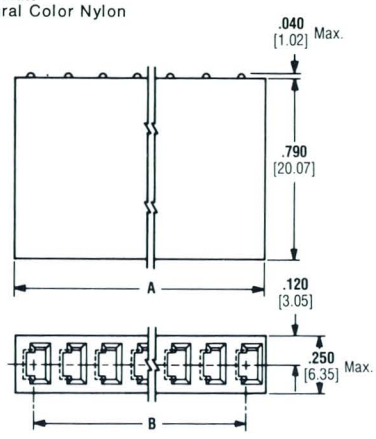
A	Part No.
.650 16.51	87116-1
.050 1.27	87116-2
.312 7.92	87116-3

Key Plug Reference (Standard Mod. I)



Single Row, Crimp Snap-In Housing (Standard)

Material: Natural Color Nylon

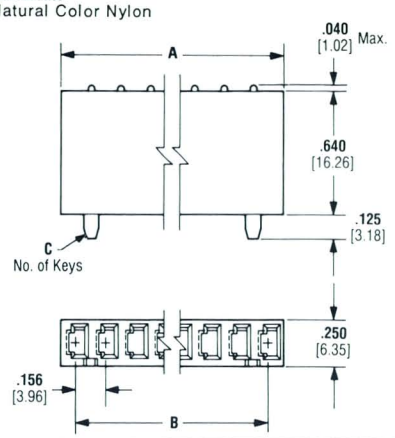


No. of Positions	Dimensions A	Dimensions B	Part No. (Stamped)[1]	Part No. (Unstamped)[2]
1	.156 .396	—	—	2-87025-7
2	.312 7.92	.156 3.96	—	2-87025-5
3	.468 11.89	.312 7.92	—	2-87025-1
4	.624 15.85	.468 11.89	—	1-87025-3
5	.780 19.81	.624 15.85	—	2-87025-3
6	.936 23.77	.780 19.81	87025-1	87025-2
7	1.092 27.74	.936 23.77	3-87025-3	3-87025-4
8	1.248 31.7	1.092 27.74	1-87025-5	1-87025-6
9	1.404 35.66	1.248 31.7	87025-9	1-87025-0
10	1.560 39.62	1.404 35.66	1-87025-7	1-87025-8
11	1.716 43.59	1.560 39.62	3-87025-5	3-87025-6
12	1.872 47.55	1.716 43.59	1-87025-1	1-87025-2
13	2.028 51.51	1.872 47.55	2-87025-9	3-87025-0
14	2.184 55.47	2.028 51.51	3-87025-7	3-87025-8
15	2.340 59.44	2.184 55.47	3-87025-1	3-87025-2
16	2.496 63.4	2.340 59.44	1-87025-9	2-87025-0
17	2.652 67.36	2.496 63.4	3-87025-9	4-87025-0
18	2.808 71.32	2.652 67.36	87025-3	87025-4
19	2.964 75.29	2.808 71.32	87025-5	87025-6
20	3.120 79.25	2.964 75.29	87025-7	87025-8
21	3.276 83.21	3.120 79.25	4-87025-1	4-87025-2
22	3.432 87.17	3.276 83.21	4-87025-3	4-87025-4
23	3.588 91.14	3.432 87.17	4-87025-5	4-87025-6
24	3.744 95.1	3.588 91.14	4-87025-7	4-87025-8
25	3.900 99.06	3.744 95.1	4-87025-9	5-87025-0

[1]Part No. stamped on housing.
[2]No Part No. on housing.

Single Row, Crimp Snap-In Housing (Keyed)

Material: Natural Color Nylon



No. of Positions	Dimensions A	Dimensions B	No. of Keys C	Part No.
2	.312 7.92	.156 3.96	1	87159-3
3	.468 11.89	.312 7.92	1	87159-4
4	.624 15.85	.468 11.89	2	87159-5
5	.780 19.81	.624 15.85	2	87159-1
6	.936 23.77	.780 19.81	3	87159-6
7	1.092 27.74	.936 23.77	3	87159-7
8	1.248 31.7	1.092 27.74	4	87159-8
9	1.404 35.66	1.248 31.7	3	87159-9
10	1.560 39.62	1.404 35.66	5	1-87159-0
11	1.716 43.59	1.560 39.62	4	1-87159-1
12	1.872 47.55	1.716 43.59	6	1-87159-2
13	2.028 51.51	1.872 47.55	4	87159-2
14	2.184 55.47	2.028 51.51	7	1-87159-3
15	2.340 59.44	2.184 55.47	5	1-87159-4
16	2.496 63.4	2.340 59.44	8	1-87159-5
17	2.652 67.36	2.496 63.4	6	1-87159-6
18	2.808 71.32	2.652 67.36	6	1-87159-7
19	2.964 75.29	2.808 71.32	8	1-87159-8
20	3.120 79.25	2.964 75.29	10	1-87159-9
21	3.276 83.21	3.120 79.25	7	2-87159-0
22	3.432 87.17	3.276 83.21	11	2-87159-1
23	3.588 91.14	3.432 87.17	8	2-87159-2
24	3.744 95.1	3.588 91.14	12	2-87159-3
25	3.900 99.06	3.744 95.1	11	2-87159-4

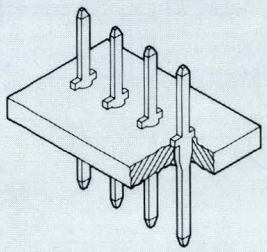
Note: These housings will mate with **Part No. Series 87160, 87632, 87633, 87654 and 87655.**

Mod. I — .031 x .062 [0.79 x 1.57] Posts

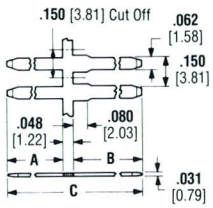
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

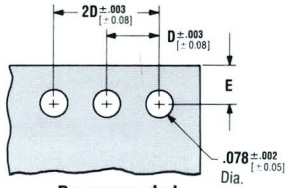
Machine Applied Posts

Material: Tempered Hard Brass



Typical Assembly





Recommended Mounting Holes

D—Post centers may vary depending on requirements. Minimum nominal centerline spacing between adjacent contacts is .125 [3.18]; ±.003 [±0.08] tolerances not to accumulate over length of board.

E—Post center location from edge of board may vary to satisfy application.

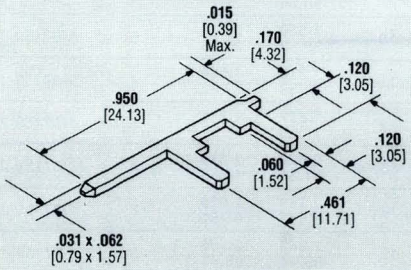
Finish	Dimensions A	B	C	Part No. (Strip Form)	Part No. (Loose Piece)
Gold/Nickel[1]	.350 8.89	.400 10.16	.798 20.27	3-86147-6	2-86182-4
	.360 9.14	.187 47.5	.595 15.11	86147-7	86182-7
	.380 9.65	.320 8.13	.748 19	1-86147-5	1-86182-5
	.480 12.19	.187 4.75	.715 18.16	1-86147-8	1-86182-8
	.565 14.35	.187 4.75	.800 20.32	86147-8	86182-8
	.565 14.35	.530 13.46	1.143 29.03	86147-6	86182-6
	.570 14.48	.130 3.3	.748 19	2-86147-0	2-86182-0
	.600 15.24	.625 15.88	1.273 32.33	86147-5	86182-5
	.670 17.02	.125 3.18	.843 21.41	1-86147-1	1-86182-1
	.800 20.32	.150 3.81	.998 25.35	1-86147-2	1-86182-2
	1.000 25.4	.150 3.81	1.198 30.43	1-86147-6	1-86182-6
Bright Tin/Nickel[2]	.350 8.89	.400 10.16	.798 20.27	1-86147-9	1-86182-9
	.360 9.14	.187 47.5	.595 15.11	86147-2	86182-2
	.380 9.65	.320 8.13	.748 19	86147-9	86182-9
	.400 10.16	.125 3.18	.573 14.55	3-86147-7	2-86182-5
	.480 12.19	.187 4.75	.715 18.16	2-86147-2	2-86182-2
	.565 14.35	.187 4.75	.800 20.32	86147-1	86182-1
	.565 14.35	.530 13.46	1.143 29.03	86147-3	86182-3
	.570 14.48	.130 3.3	.748 19	3-86147-9	2-86182-6
	.600 15.24	.625 15.88	1.273 32.33	86147-4	86182-4
	.670 17.02	.125 3.18	.843 21.41	2-86147-3	2-86182-3
	.800 20.32	.150 3.81	.998 25.35	1-86147-0	1-86182-0
	1.000 25.4	.150 3.81	1.198 30.43	4-86147-1	2-86182-7
Gold/Nickel[3]	.565 14.35	.187 47.5	.800 20.32	1-86147-4	1-86182-4
	.750 19.05	.375 9.53	1.175 29.85	2-86147-1	2-86182-1
	.670 17.02	.125 3.18	.843 21.41	1-86147-7	1-86182-7
	.800 20.32	.150 3.81	.998 25.35	1-86147-3	1-86182-3

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel.
[3].000015 [0.00038] gold over .000050 [0.00127] nickel.

Note: Above mounting hole dim. is recommended when retaining posts in printed circuit board by soldering.

Right Angle Male Contact Posts (For Machine Application Only)

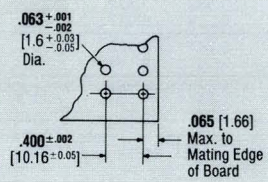
Material: Brass



Finish	Part No.
Tin	86311-2
Gold/Nickel[1]	86311-3

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.

Recommended Mounting Hole

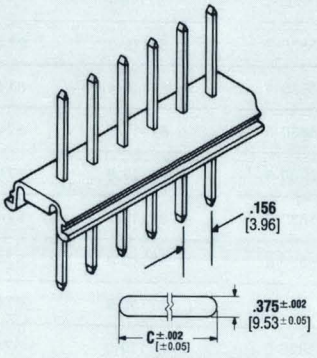


Mod. I — .031 x .062 [0.79 x 1.57] Header Assemblies

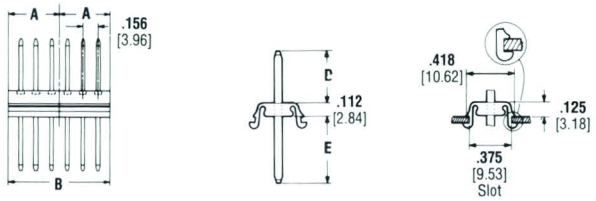
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

Snap-In Headers .156 [3.96] Centers

Material and Finish:
Housing—Natural Color Nylon
Contact—Brass, .000100-.000200 [0.00254-0.00508]
Bright Tin over .000030 [0.00076] Nickel Plated



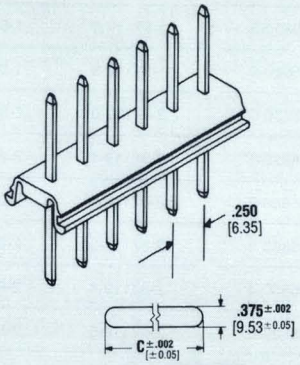
Recommended Mounting Slot .063 [1.6] Panel Thickness



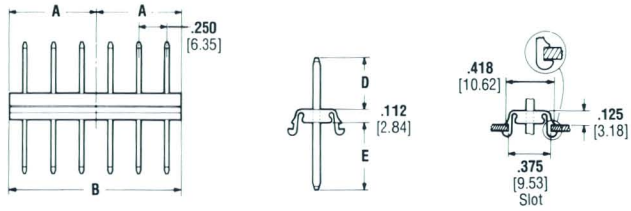
No. of Pos.	Dimensions					Part No. For .063 [1.6] Chassis
	A	B	C	D	E	
6	.473 12.01	.936 23.77	1.176 29.87	.588 14.94	1.250 31.75	86378-2
6	.473 12.01	.936 23.77	1.176 29.87	.688 17.48	.741 18.82	86377-1
7	.551 14	1.092 27.74	1.332 33.83	.688 17.48	.741 18.82	86377-3
10	.785 19.94	1.560 39.62	1.800 45.72	.688 17.48	.741 18.82	86377-4
12	.941 23.90	1.872 47.55	2.112 53.64	.588 14.94	1.250 31.75	86378-1
12	.941 23.90	1.872 47.55	2.112 53.64	.688 17.44	.741 18.82	86377-2

Snap-In Headers .250 [6.35] Centers

Material and Finish:
Housing—Natural Color Nylon
Contact—Brass, .000100-.000200 [0.00254-0.00508]
Bright Tin over .000030 [0.00076] Nickel Plated



Recommended Mounting Slot



No. of Pos.	Dimensions					Part Nos.	
	A	B	C	D	E	For .050 [1.27] Chassis	For .063 [1.6] Chassis
3	.380 9.65	.756 19.2	.990 25.15	.600 15.24	.650 16.51	86190-2	86285-1
4	.505 12.83	1.006 25.55	1.240 31.5	.600 15.24	.650 16.51	86190-3	86285-2
5	.630 16	1.256 31.9	1.490 37.85	.600 15.24	.650 16.51	86190-4	86285-3
6	.755 19.18	1.506 38.25	1.740 44.2	.600 15.24	.650 16.51	86190-1	86285-4
6	.760 19.3	1.516 38.51	1.740 44.2	.540 13.72	.710 18.03	86329-1	—
7	.880 22.35	1.756 44.6	1.990 50.55	.600 15.24	.650 16.51	86190-5	86285-5
7	.880 22.35	1.756 44.6	1.990 50.55	.700 17.78	.400 10.16	87134-1	—
8	1.005 25.53	2.006 50.95	2.240 56.9	.600 15.24	.650 16.51	86190-6	86285-6
8	1.010 25.65	2.016 51.21	2.240 56.9	.540 13.72	.710 18.03	86329-2	—
9	1.130 28.7	2.256 57.3	2.490 63.25	.600 15.24	.650 16.51	86190-7	86285-7
10	1.255 31.88	2.506 63.65	2.740 69.6	.600 15.24	.650 16.51	86190-8	86285-8
11	1.380 35.05	2.756 70	2.990 75.95	.600 15.24	.650 16.51	86190-9	—

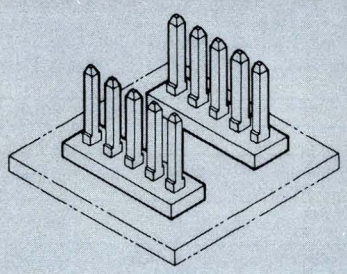
Note: For best retention, housing assemblies should be inserted in the direction opposite the chassis punch.

Mod. I — .031 x .062 [0.79 x 1.57] Header Assemblies (Cont'd.)

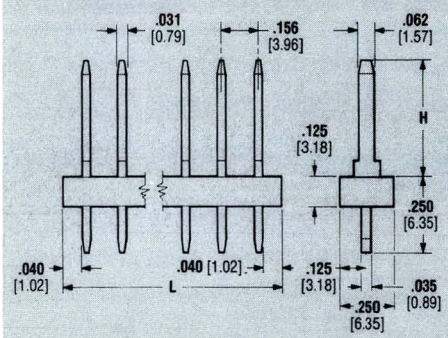
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

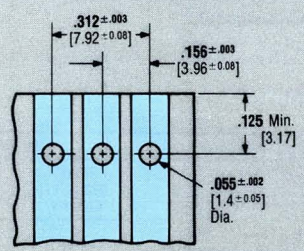
Printed Circuit Headers .156 [3.96] Centers

Material: Housing—Natural Color Nylon
Contact—Brass



Typical Assembly





Mounting Dimensions

Note: Programmed loading of posts in Nylon housings available on special order.

No. of Pos.	L Dim.	Post Height H=.405 [10.29]			Post Height H=.587 [14.9]	
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts
1	.111 2.82	85829-1	87066-1	85830-1	87119-1	87403-1
2	.267 6.78	85829-2	87066-2	85830-2	87119-2	87403-2
3	.423 10.74	85829-3	87066-3	85830-3	87119-3	87403-3
4	.579 14.71	85829-4	87066-4	85830-4	87119-4	87403-4
5	.735 18.67	85829-5	87066-5	85830-5	87119-5	87403-5
6	.891 22.63	85829-6	87066-6	85830-6	87119-6	87403-6
7	1.047 26.59	85829-7	87066-7	85830-7	87119-7	87403-7
8	1.203 30.56	85829-8	87066-8	85830-8	87119-8	87403-8
9	1.359 34.52	85829-9	87066-9	85830-9	87119-9	87403-9
10	1.515 38.48	1-85829-0	1-87066-0	1-85830-0	1-87119-0	1-87403-0
11	1.671 42.44	1-85829-1	1-87066-1	1-85830-1	1-87119-1	1-87403-1
12	1.827 46.41	1-85829-2	1-87066-2	1-85830-2	1-87119-2	1-87403-2
13	1.983 50.37	1-85829-3	1-87066-3	1-85830-3	1-87119-3	1-87403-3
14	2.139 54.33	1-85829-4	1-87066-4	1-85830-4	1-87119-4	1-87403-4
15	2.295 58.29	1-85829-5	1-87066-5	1-85830-5	1-87119-5	1-87403-5
16	2.451 62.26	1-85829-6	1-87066-6	1-85830-6	1-87119-6	1-87403-6
17	2.607 66.22	1-85829-7	1-87066-7	1-85830-7	1-87119-7	1-87403-7
18	2.763 70.18	1-85829-8	1-87066-8	1-85830-8	1-87119-8	1-87403-8
19	2.919 74.14	1-85829-9	1-87066-9	1-85830-9	1-87119-9	1-87403-9
20	3.075 78.11	2-85829-0	2-87066-0	2-85830-0	2-87119-0	2-87403-0
21	3.231 82.07	2-85829-1	2-87066-1	2-85830-1	2-87119-1	2-87403-1
22	3.387 86.03	2-85829-2	2-87066-2	2-85830-2	2-87119-2	2-87403-2
23	3.543 89.99	2-85829-3	2-87066-3	2-85830-3	2-87119-3	2-87403-3
24	3.699 93.95	2-85829-4	2-87066-4	2-85830-4	2-87119-4	2-87403-4
25	3.855 97.92	2-85829-5	2-87066-5	2-85830-5	2-87119-5	2-87403-5
26	4.011 101.88	2-85829-6	2-87066-6	2-85830-6	2-87119-6	2-87403-6
27	4.167 105.84	2-85829-7	2-87066-7	2-85830-7	2-87119-7	2-87403-7
28	4.323 109.8	2-85829-8	2-87066-8	2-85830-8	2-87119-8	2-87403-8
29	4.479 113.77	2-85829-9	2-87066-9	2-85830-9	2-87119-9	2-87403-9
30	4.635 117.73	3-85829-0	3-87066-0	3-85830-0	3-87119-0	3-87403-0
31	4.791 121.69	3-85829-1	3-87066-1	3-85830-1	3-87119-1	3-87403-1
32	4.947 125.65	3-85829-2	3-87066-2	3-85830-2	3-87119-2	3-87403-2
33	5.103 129.62	3-85829-3	3-87066-3	3-85830-3	3-87119-3	3-87403-3
34	5.259 133.58	3-85829-4	3-87066-4	3-85830-4	3-87119-4	3-87403-4
35	5.415 137.54	3-85829-5	3-87066-5	3-85830-5	3-87119-5	3-87403-5

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel.

Mod. I — .031 x .062 [0.79 x 1.57] Header Assemblies (Cont'd.)

Dimensioning:

1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

No. of Pos.	L Dim.	Post Height H=.662 [16.81]	Post Height H=.750 [19.05]		Post Height H=.875 [22.23]	Post Height H=1.187 [30.15]		Post Height H=1.310 [33.27]	
		Gold/Nickel[1] Plated Posts	Gold/Nickel[1] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[1] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Bright Tin/Nickel[3] Plated Posts
1	.111 2.82	86469-1	85923-1	85875-6	87113-1	87283-1	—	85839-1	85840-1
2	.267 6.78	86469-2	85923-2	85875-7	87113-2	87283-2	86207-8	85839-2	85840-2
3	.423 10.74	86469-3	85923-3	85875-8	87113-3	87283-3	86207-2	85839-3	85840-3
4	.579 14.71	86469-4	85923-4	85875-1	87113-4	87283-4	86207-9	85839-4	85840-4
5	.735 18.67	86469-5	85923-5	85875-2	87113-5	87283-5	86207-3	85839-5	85840-5
6	.891 22.63	86469-6	85923-6	85875-9	87113-6	87283-6	86207-4	85839-6	85840-6
7	1.047 26.59	86469-7	85923-7	1-85875-0	87113-7	87283-7	1-86207-0	85839-7	85840-7
8	1.203 30.56	86469-8	85923-8	1-85875-1	87113-8	87283-8	86207-5	85839-8	85840-8
9	1.359 34.52	86469-9	85923-9	85875-3	87113-9	87283-9	86207-6	85839-9	85840-9
10	1.515 38.48	1-86469-0	1-85923-0	1-85875-2	1-87113-0	1-87283-0	86207-1	1-85839-0	1-85840-0
11	1.671 42.44	1-86469-1	1-85923-1	1-85875-3	1-87113-1	1-87283-1	—	1-85839-1	1-85840-1
12	1.827 46.41	1-86469-2	1-85923-2	85875-4	1-87113-2	1-87283-2	—	1-85839-2	1-85840-2
13	1.983 50.37	1-86469-3	1-85923-3	1-85875-4	1-87113-3	1-87283-3	—	1-85839-3	1-85840-3
14	2.139 54.33	1-86469-4	1-85923-4	1-85875-5	1-87113-4	1-87283-4	—	1-85839-4	1-85840-4
15	2.295 58.29	1-86469-5	1-85923-5	1-85875-6	1-87113-5	1-87283-5	—	1-85839-5	1-85840-5
16	2.451 62.26	1-86469-6	1-85923-6	1-85875-7	1-87113-6	1-87283-6	—	1-85839-6	1-85840-6
17	2.607 66.22	1-86469-7	1-85923-7	1-85875-8	1-87113-7	1-87283-7	—	1-85839-7	1-85840-7
18	2.763 70.18	1-86469-8	1-85923-8	1-85875-9	1-87113-8	1-87283-8	—	1-85839-8	1-85840-8
19	2.919 74.14	1-86469-9	1-85923-9	2-85875-0	1-87113-9	1-87283-9	—	1-85839-9	1-85840-9
20	3.075 78.11	2-86469-0	2-85923-0	2-85875-1	2-87113-0	2-87283-0	—	2-85839-0	2-85840-0
21	3.231 82.07	2-86469-1	2-85923-1	2-85875-2	2-87113-1	2-87283-1	—	2-85839-1	2-85840-1
22	3.387 86.03	2-86469-2	2-85923-2	2-85875-3	2-87113-2	2-87283-2	—	2-85839-2	2-85840-2
23	3.543 89.99	2-86469-3	2-85923-3	85875-5	2-87113-3	2-87283-3	—	2-85839-3	2-85840-3
24	3.699 93.95	2-86469-4	2-85923-4	2-85875-4	2-87113-4	2-87283-4	—	2-85839-4	2-85840-4
25	3.855 97.92	2-86469-5	2-85923-5	2-85875-5	2-87113-5	2-87283-5	—	2-85839-5	2-85840-5
26	4.011 101.88	2-86469-6	2-85923-6	2-85875-6	2-87113-6	2-87283-6	—	2-85839-6	2-85840-6
27	4.167 105.84	2-86469-7	2-85923-7	2-85875-7	2-87113-7	2-87283-7	—	2-85839-7	2-85840-7
28	4.323 109.8	2-86469-8	2-85923-8	2-85875-8	2-87113-8	2-87283-8	—	2-85839-8	2-85840-8
29	4.479 113.77	2-86469-9	2-85923-9	2-85875-9	2-87113-9	2-87283-9	—	2-85839-9	2-85840-9
30	4.635 117.73	3-86469-0	3-85923-0	3-85875-0	3-87113-0	3-87283-0	—	3-85839-0	3-85840-0
31	4.791 121.69	3-86469-1	3-85923-1	3-85875-1	3-87113-1	3-87283-1	—	3-85839-1	3-85840-1
32	4.947 125.65	3-86469-2	3-85923-2	3-85875-2	3-87113-2	3-87283-2	—	3-85839-2	3-85840-2
33	5.103 129.62	3-86469-3	3-85923-3	3-85875-3	3-87113-3	3-87283-3	—	3-85839-3	3-85840-3
34	5.259 133.58	3-86469-4	3-85923-4	3-85875-4	3-87113-4	3-87283-4	—	3-85839-4	3-85840-4
35	5.415 137.54	3-86469-5	3-85923-5	3-85875-5	3-87113-5	3-87283-5	86207-7	3-85839-5	3-85840-5

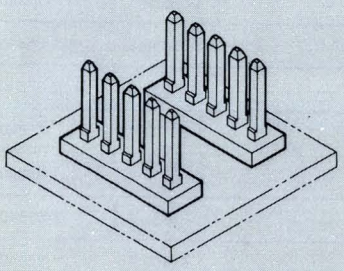
[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel.

Mod. I — .031 x .062 [0.79 x 1.57] Header Assemblies (Cont'd.)

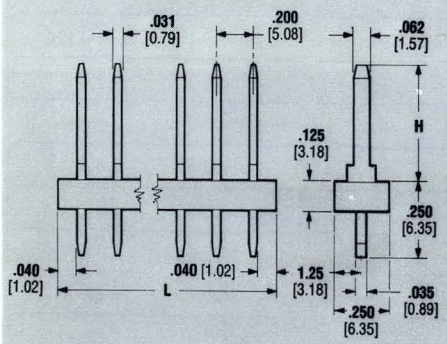
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

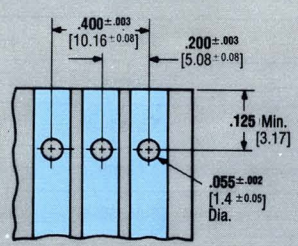
Printed Circuit Headers .200 [5.08] Centers

Material: Housing—Natural Color Nylon
Contact—Brass



Typical Assembly





Mounting Dimensions

No. of Pos.	L Dim.	Post Height H=.405 [10.29] Gold/Nickel[1] Plated Posts	Post Height H=.405 [10.29] Bright Tin/Nickel[3] Plated Posts	Post Height H=.587 [14.9] Bright Tin/Nickel[3] Plated Posts	Post Height H=.750 [19.05] Gold/Nickel[2] Plated Posts
1	.111 2.82	—	—	87397-6	—
2	.311 7.9	—	—	87397-7	—
3	.511 12.98	—	—	87397-8	—
4	.711 18.06	—	—	87397-9	—
5	.911 23.14	86416-2	86416-1	87397-1	—
6	1.111 28.22	—	—	1-87397-0	—
7	1.311 33.3	—	—	1-87397-1	—
8	1.511 38.38	86416-6	—	87397-2	—
9	1.711 43.46	—	—	1-87397-2	—
10	1.911 48.54	86416-5	—	1-87397-3	—
11	2.111 53.62	—	—	1-87397-4	—
12	2.311 58.7	—	—	1-87397-5	—
13	2.511 63.78	—	—	87397-3	—
14	2.711 68.86	—	—	87397-4	87183-1
15	2.911 73.94	—	—	1-87397-6	—
16	3.111 79.02	—	—	1-87397-7	—
17	3.311 84.1	—	—	1-87397-8	—
18	3.511 89.18	—	—	1-87397-9	—
19	3.711 94.26	—	—	2-87397-0	—
20	3.911 99.34	—	—	2-87397-1	—
21	4.111 104.42	—	—	2-87397-2	—
22	4.311 109.5	—	—	2-87397-3	—
23	4.511 114.58	—	—	2-87397-4	—
24	4.711 119.66	86416-4	86416-3	87397-5	—

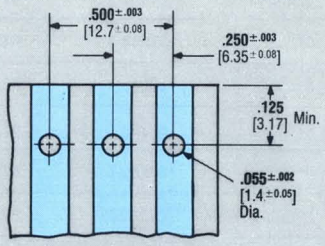
[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel.

Mod. I — .031 x .062 [0.79 x 1.57] Header Assemblies (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

Printed Circuit Headers .250 [6.35] Centers

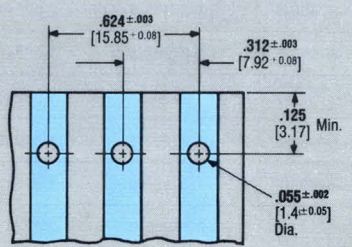
Material: Housing—Natural Color Nylon
Contact—Brass



Mounting Dimensions

Printed Circuit Headers .312 [7.92] Centers

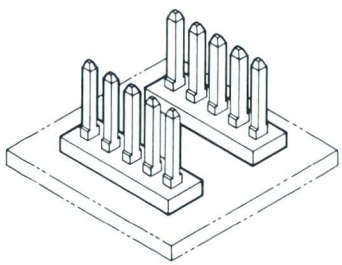
Material: Housing—Natural Color Nylon
Contact—Brass



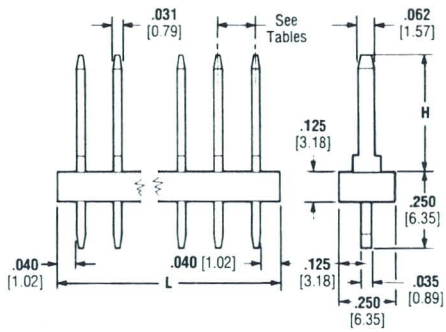
Mounting Dimensions

.250 [6.35] CENTERLINE

No. of Pos.	L Dim.	Post Height H=.750 [19.05] Gold/Nickel[1] Plated Posts
9	**2.111** 53.62	87064-1



Typical Assembly



.312 [7.92] CENTERLINE

No. of Pos.	L Dim.	Post Height H=.405 [10.29] Gold/Nickel[1] Plated Posts	Post Height H=.405 [10.29] Bright Tin/Nickel[3] Plated Posts	Post Height H=.750 [19.05] Bright Tin/Nickel[3] Plated Posts	Post Height H=1.310 [33.27] Bright Tin/Nickel[3] Plated Posts
2	**.423** 10.74	86199-1	—	—	—
3	**.735** 18.67	86199-2	—	—	86359-2
4	**1.047** 26.59	86199-3	86137-2	—	—
5	**1.359** 34.52	86199-4	—	—	—
6	**1.671** 42.44	86199-5	—	—	—
7	**1.983** 50.37	86199-6	—	—	—
8	**2.295** 58.29	86199-7	86137-1	86247-2	86359-1
9	**2.607** 66.22	86199-8	—	—	—
10	**2.919** 74.14	86199-9	—	86247-1	—
15	**4.479** 113.77	—	86137-4	—	—
16	**4.791** 121.69	—	86137-3	—	—
18	**5.415** 137.54	1-86199-0	86137-5	86247-3	86359-3

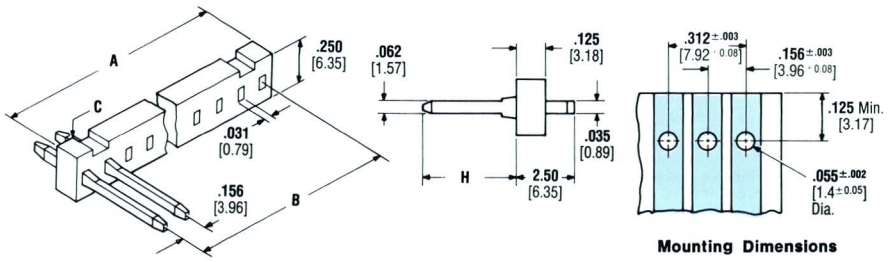
[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel.

Mod. I — .031 x .062 [0.79 x 1.57] Header Assemblies (Cont'd.)

Dimensioning:
1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

Printed Circuit Headers (Keyed), .156 [3.96] Centers

Material: Housing—Natural Color Nylon
Contact—Brass



Mounting Dimensions

No. of Pos.	Dimensions		No. of Keying Slots	Post Height H=.405 [10.29]		Post Height H=.587 [14.9]	
	A	B	C	Bright Tin/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[1] Plated Posts	Gold/Nickel[3] Plated Posts
2	.267 6.78	.156 3.96	1	87160-4	87633-2	87262-2	87247-2
3	.423 10.74	.312 7.92	1	87160-5	87633-3	87262-3	87247-3
4	.579 14.71	.468 11.89	2	87160-6	87633-4	87262-4	87247-4
5	.735 18.67	.624 15.85	2	87160-1	87633-5	87262-5	87247-5
6	.891 22.63	.780 19.81	3	87160-7	87633-6	87262-6	87247-6
7	1.047 26.59	.936 23.77	3	87160-8	87633-7	87262-7	87247-7
8	1.203 30.56	1.092 27.74	4	87160-9	87633-8	87262-8	87247-8
9	1.359 34.52	1.248 31.7	3	1-87160-0	87633-9	87262-9	87247-9
10	1.515 38.48	1.404 35.66	5	1-87160-1	1-87633-0	1-87262-0	1-87247-0
11	1.671 42.44	1.560 39.62	4	1-87160-2	1-87633-1	1-87262-1	1-87247-1
12	1.827 46.41	1.716 43.59	6	1-87160-3	1-87633-2	1-87262-2	1-87247-2
13	1.983 50.37	1.872 47.55	4	87160-2	1-87633-3	1-87262-3	1-87247-3
14	2.139 54.33	2.028 51.51	7	1-87160-4	1-87633-4	1-87262-4	1-87247-4
15	2.295 58.29	2.184 55.47	5	1-87160-5	1-87633-5	1-87262-5	1-87247-5
16	2.451 62.26	2.340 59.44	8	1-87160-6	1-87633-6	1-87262-6	1-87247-6
17	2.607 66.22	2.496 63.4	6	1-87160-7	1-87633-7	1-87262-7	1-87247-7
18	2.754 69.95	2.652 67.36	6	1-87160-8	1-87633-8	1-87262-8	1-87247-8
19	2.919 74.14	2.808 71.32	8	1-87160-9	1-87633-9	1-87262-9	1-87247-9
20	3.075 78.1	2.964 75.29	10	2-87160-0	2-87633-0	2-87262-0	2-87247-0
21	3.231 82.07	3.120 79.25	7	2-87160-1	2-87633-1	2-87262-1	2-87247-1
22	3.387 86.03	3.276 83.21	11	2-87160-2	2-87633-2	2-87262-2	2-87247-2
23	3.543 89.99	3.432 87.17	8	2-87160-3	2-87633-3	2-87262-3	2-87247-3
24	3.690 93.73	3.588 91.14	12	2-87160-4	2-87633-4	2-87262-4	2-87247-4
25	3.846 97.69	3.744 95.1	11	2-87160-5	2-87633-5	2-87262-5	2-87247-5

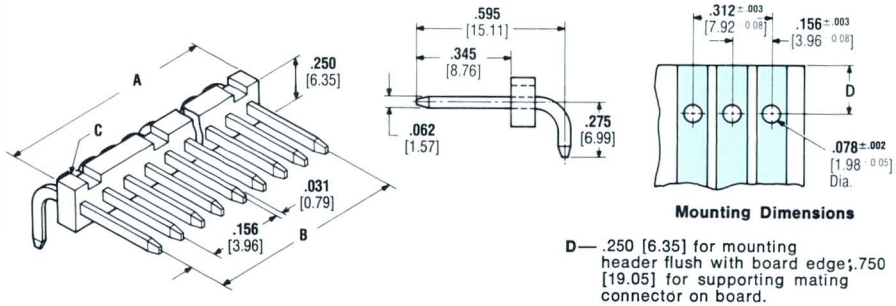
[1].000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000030 [0.00076] gold over .000050 [0.00127] nickel.
Note: These headers will mate with **Part No. Series 87159,** as shown on page 5. **Header Series 87160 and 87633** have the preferred post length for mating.

Mod. I — .031 x .062 [0.79 x 1.57] Header Assemblies (Cont'd.)

Dimensioning:
1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

Right Angle Headers .156 [3.96] Centers

Material: Housing—Natural Color Nylon
Contact—Brass



Mounting Dimensions

D— .250 [6.35] for mounting header flush with board edge; .750 [19.05] for supporting mating connector on board.

No. of Pos.	Dimensions A	Dimensions B	No. of Keying Slots C	Post Height .345 [8.76] Bright Tin/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Gold/Nickel[3] Plated Posts
2	.267 6.78	.156 3.96	1	87655-2	87632-2	87654-2
3	.423 10.74	.312 7.92	1	87655-3	87632-3	87654-3
4	.579 14.71	.468 11.89	2	87655-4	87632-4	87654-4
5	.735 18.67	.624 15.85	2	87655-5	87632-5	87654-5
6	.891 22.63	.780 19.81	3	87655-6	87632-6	87654-6
7	1.047 26.59	.936 23.77	3	87655-7	87632-7	87654-7
8	1.203 30.56	1.092 27.74	4	87655-8	87632-8	87654-8
9	1.359 34.52	1.248 31.7	3	87655-9	87632-9	87654-9
10	1.515 38.48	1.404 35.66	5	1-87655-0	1-87632-0	1-87654-0
11	1.671 42.44	1.560 39.62	4	1-87655-1	1-87632-1	1-87654-1
12	1.827 46.41	1.716 43.59	6	1-87655-2	1-87632-2	1-87654-2
13	1.983 50.37	1.872 47.55	4	1-87655-3	1-87632-3	1-87654-3
14	2.139 54.33	2.028 51.51	7	1-87655-4	1-87632-4	1-87654-4
15	2.295 58.29	2.184 55.47	5	1-87655-5	1-87632-5	1-87654-5
16	2.451 62.26	2.340 59.44	8	1-87655-6	1-87632-6	1-87654-6
17	2.607 66.22	2.496 63.4	6	1-87655-7	1-87632-7	1-87654-7
18	2.754 69.95	2.652 67.36	6	1-87655-8	1-87632-8	1-87654-8
19	2.919 74.14	2.808 71.32	8	1-87655-9	1-87632-9	1-87654-9
20	3.075 78.1	2.964 75.29	10	2-87655-0	2-87632-0	2-87654-0
21	3.231 82.07	3.120 79.25	7	2-87655-1	2-87632-1	2-87654-1
22	3.387 86.03	3.276 83.21	11	2-87655-2	2-87632-2	2-87654-2
23	3.543 89.99	3.432 87.17	8	2-87655-3	2-87632-3	2-87654-3
24	3.690 93.73	3.588 91.14	12	2-87655-4	2-87632-4	2-87654-4
25	3.846 97.69	3.744 95.1	11	2-87655-5	2-87632-5	2-87654-5

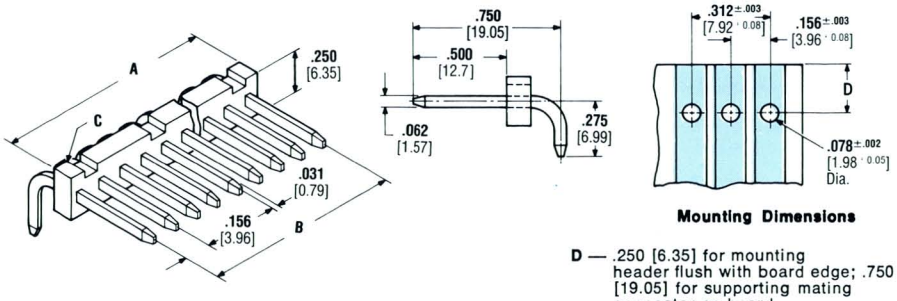
[1].000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000030 [0.00076] gold over .000050 [0.00127] nickel.
Note: These headers will mate with **Part No. Series 87159,** as shown on page 5.

Mod. I — .031 x .062 [0.79 x 1.57] Header Assemblies (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Right Angle Headers .156 [3.96] Centers

Material: Housing—Natural Color Nylon
Contact—Brass



Mounting Dimensions

D — .250 [6.35] for mounting header flush with board edge; .750 [19.05] for supporting mating connector on board.

No. of Pos.	Dimensions		No. of Keying Slots	Post Height .500 [12.7]	
	A	B	C	Bright Tin/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts
2	**.267** 6.78	**.156** 3.96	1	87194-1	87258-2
3	**.423** 10.74	**.312** 7.92	1	87194-2	87258-3
4	**.579** 14.71	**.468** 11.89	2	87194-3	87258-4
5	**.735** 18.67	**.624** 15.85	2	87194-4	87258-5
6	**.891** 22.63	**.780** 19.81	3	87194-5	87258-6
7	**1.047** 26.59	**.936** 23.77	3	87194-6	87258-7
8	**1.203** 30.56	**1.092** 27.74	4	87194-7	87258-8
9	**1.359** 34.52	**1.248** 31.7	3	87194-8	87258-9
10	**1.515** 38.48	**1.404** 35.66	5	87194-9	1-87258-0
11	**1.671** 42.44	**1.560** 39.62	4	1-87194-0	1-87258-1
12	**1.827** 46.41	**1.716** 43.59	6	1-87194-1	1-87258-2
13	**1.983** 50.37	**1.872** 47.55	4	1-87194-2	1-87258-3
14	**2.139** 54.33	**2.028** 51.51	7	1-87194-3	1-87258-4
15	**2.295** 58.29	**2.184** 55.47	5	1-87194-4	1-87258-5
16	**2.451** 62.26	**2.340** 59.44	8	1-87194-5	1-87258-6
17	**2.607** 66.22	**2.496** 63.4	6	1-87194-6	1-87258-7
18	**2.754** 69.95	**2.652** 67.36	6	1-87194-7	1-87258-8
19	**2.919** 74.14	**2.808** 71.32	8	1-87194-8	1-87258-9
20	**3.075** 78.1	**2.964** 75.29	10	1-87194-9	2-87258-0
21	**3.231** 82.07	**3.120** 79.25	7	2-87194-0	2-87258-1
22	**3.387** 86.03	**3.276** 83.21	11	2-87194-1	2-87258-2
23	**3.543** 89.99	**3.432** 87.17	8	2-87194-2	2-87258-3
24	**3.690** 93.73	**3.588** 91.14	12	2-87194-3	2-87258-4
25	**3.846** 97.69	**3.744** 95.1	11	2-87194-4	2-87258-5

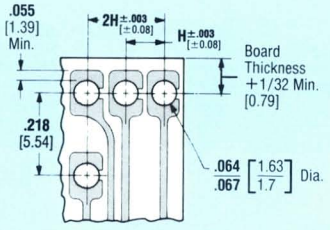
[1].000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
Note: These headers will mate with AMPMODU .031 x .062 [0.79 x 1.57] Locking Clip **Part No. Series 87270.** Refer to AMP Literature No. 73-209.

Mod. II —.025 x .025 [0.64 x 0.64] Receptacles

Dimensioning:
1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

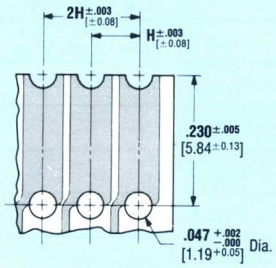
Recommended Board Layouts

Post Entry Type A or B

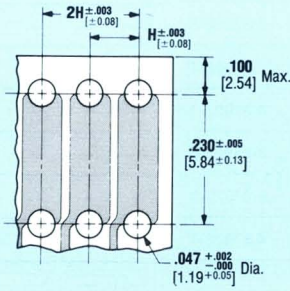


Vertical[3]

Post Entry Type C



Horizontal[1,3]



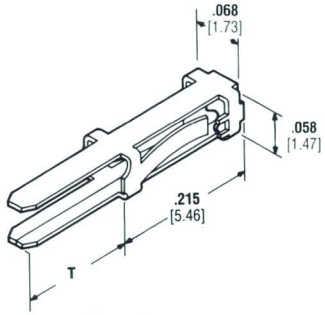
Horizontal[2,3]

H—Receptacle centers may vary depending on requirements.
Minimum nominal centerline spacing between adjacent receptacles is .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate over length of board.

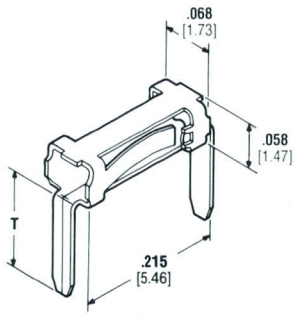
[1]This configuration recommended for receptacle when mating with **Post No. 86144 and 87022.**
[2]This configuration may not be used with **Post No. 86144 and 87022.**
[3]Drawings depict normal use of the contact in a one- or two-sided printed circuit board. When using plated thru-holes, refer to AMP Engineering Report ER-001 and I.S. 7411.

Board Mount Receptacles

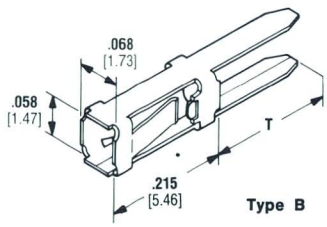
Material: Phosphor Bronze



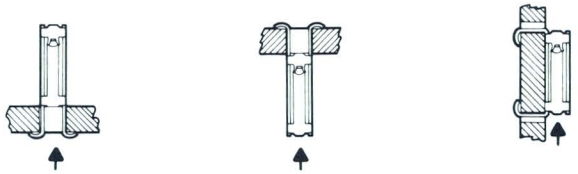
Type A



Type C



Type B



Post Entry Type A | **Post Entry Type B** | **Post Entry Type C**

Mates with .025 x .025 [0.64 x 0.64] Post
AMP Product Specification No. 108-9007

Board Thickness	T Dim.	Finish	Type A Part No. (Strip Form)*	Type A Part No. (Loose Piece)	Type B Part No. (Strip Form)*	Type B Part No. (Loose Piece)	Type C Part No. (Strip Form)*	Type C Part No. (Loose Piece)
1/16 1.59	.115 2.92	Gold/Nickel[1]	85861-2	85864-2	85862-2	85865-2	85863-2	85866-2
		Tin	85861-3	85864-3	85862-3	85865-3	85863-3	85866-3
		Gold/Nickel[2]	85861-4	85864-4	85862-4	85865-4	85863-4	85866-4
		Gold/Nickel[3]	2-85861-1	1-85864-1	—	—	1-85863-1	1-85866-1
		Gold/Nickel[4]	—	—	—	—	1-85863-2	1-85866-2
3/32 2.39	.145 3.68	Gold/Nickel[1]	85861-5	85864-5	85862-5	85865-5	85863-5	85866-5
		Tin	85861-6	85864-6	85862-6	85865-6	85863-6	85866-6
		Gold/Nickel[2]	85861-7	85864-7	85862-7	85865-7	85863-7	85866-7
1/8 3.18	.175 4.45	Gold/Nickel[1]	85861-8	85864-8	85862-8	85865-8	85863-8	85866-8
		Tin	85861-9	85864-9	85862-9	85865-9	85863-9	85866-9
		Gold/Nickel[2]	1-85861-0	1-85864-0	1-85862-0	1-85865-0	1-85863-0	1-85866-0

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2]Gold flash over .000050 [0.00127] nickel on entire receptacle, .000030 [0.00076] gold on contact area.
[3]Gold flash over .000050 [0.00127] nickel on entire receptacle, .000015 [0.00038] gold on contact area.
[4].000050 [0.00127] gold over .000050 [0.00127] nickel.

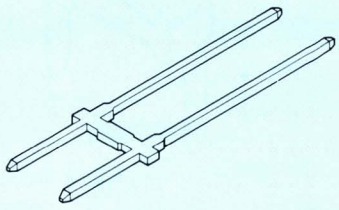
*Receptacles are reeled for miniature applicator.

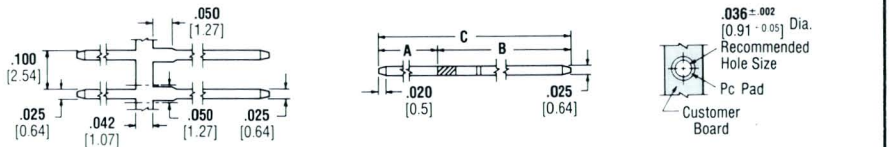
Mod. II — .025 x .025 [0.64 x 0.64] Posts

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Machine Applied Post

Material: Phosphor Bronze





Gold/Nickel[1] Dimensions A	B	C	Part No.	Gold/Nickel[2] Dimensions A	B	C	Part No.	Gold/Nickel[3] Dimensions A	B	C	Part No.	Bright Tin/Nickel[4] Dimensions A	B	C	Part No.	Gold/Nickel[5] Dimensions A	B	C	Part No.
.278 7.06	.165 4.19	.443 11.25	87022-1	.210 5.33	.227 5.77	.437 10.1	6-87022-6	.278 7.06	.165 4.19	.443 11.25	1-87022-1	.210 5.33	.227 5.77	.437 10.1	1-87022-4	.278 7.06	.165 4.19	.443 11.25	1-87022-5
.278 7.06	.255 6.48	.533 13.54	2-87022-5	.278 7.06	.165 4.19	.443 11.25	87022-9	.278 7.06	.230 5.84	.508 12.9	87022-7	.278 7.06	.165 4.19	.443 11.25	1-87022-0	—	—	—	—
.278 7.06	.284 7.21	.562 14.27	1-87022-3	.278 7.06	.230 5.84	.508 12.9	6-87022-7	.278 7.06	.284 7.22	.562 14.27	2-87022-2	.278 7.06	.255 6.48	.583 14.81	3-87022-6	—	—	—	—
.278 7.06	.330 8.38	.608 15.44	2-87022-4	.278 7.06	.255 6.48	.533 13.54	2-87022-6	.278 7.06	.350 8.89	.628 15.95	7-87022-0	.278 7.06	.350 8.89	.628 15.95	3-87022-9	—	—	—	—
.278 7.06	.350 8.89	.628 15.95	1-87022-6	.278 7.06	.350 8.89	6.28 15.95	1-87022-9	.278 7.06	.410 10.41	.688 17.48	87022-8	.278 7.06	.385 9.78	.663 16.84	8-87022-8	—	—	—	—
.278 7.06	.385 9.78	.663 16.84	2-87022-8	.278 7.06	.385 9.78	.663 16.84	8-87022-6	.278 7.06	.650 16.51	.928 23.57	7-87022-1	.278 7.06	.450 11.43	.728 18.49	9-87022-1	—	—	—	—
.278 7.06	.410 10.41	.688 17.48	4-87022-0	.278 7.06	.410 10.41	.688 17.48	3-87022-0	.278 7.06	.738 18.75	1.016 25.81	87022-5	.278 7.06	.550 13.97	.828 21.03	3-87022-1	—	—	—	—
.278 7.06	.450 11.43	.728 18.49	7-87022-3	.278 7.06	.450 11.43	.728 18.49	9-87022-0	—	—	—	—	.278 7.06	.585 14.86	.863 21.92	8-87022-9	—	—	—	—
.278 7.06	.550 13.97	.828 21.03	1-87022-7	.278 7.06	.550 13.97	.828 21.03	2-87022-0	—	—	—	—	.278 7.06	.650 16.51	.928 23.57	3-87022-8	—	—	—	—
.278 7.06	.585 14.86	.863 21.92	2-87022-9	.278 7.06	.585 14.86	.863 21.92	8-87022-7	—	—	—	—	.278 7.06	.738 18.75	1.016 25.81	87022-4	—	—	—	—
.278 7.06	.650 16.51	.928 23.57	1-87022-8	.278 7.06	.650 16.51	.928 23.57	2-87022-1	—	—	—	—	.278 7.06	.960 24.38	1.238 31.45	8-87022-3	—	—	—	—
.278 7.06	.738 18.75	1.016 25.81	87022-2	.278 7.06	.738 18.75	1.016 25.81	87022-3	—	—	—	—	.278 7.06	1.160 29.46	1.438 36.53	8-87022-5	—	—	—	—
.278 7.06	.960 24.38	1.238 31.45	7-87022-8	.278 7.06	.960 24.38	1.238 31.45	8-87022-2	—	—	—	—	.318 8.08	.165 4.19	.483 12.27	4-87022-3	—	—	—	—
.278 .706	1.160 29.46	1.438 36.53	8-87022-0	.278 7.06	1.160 29.46	1.438 36.53	8-87022-4	—	—	—	—	.900 22.86	.165 4.19	1.065 27.05	4-87022-4	—	—	—	—
.318 8.08	.165 4.19	.483 12.27	4-87022-1	.318 8.08	.165 4.19	.483 12.27	4-87022-2	—	—	—	—	—	—	—	—	—	—	—	—
.318 8.08	.738 18.75	1.056 26.82	6-87022-9	.560 14.22	.255 6.48	.815 20.7	2-87022-7	—	—	—	—	—	—	—	—	—	—	—	—
.395 10.03	.165 4.19	.560 14.22	8-87022-1	.660 16.76	.255 6.48	.915 23.24	3-87022-7	—	—	—	—	—	—	—	—	—	—	—	—
.395 10.03	.255 6.48	.650 16.51	3-87022-2	.670 17.02	.165 4.19	.835 21.21	2-87022-3	—	—	—	—	—	—	—	—	—	—	—	—
.460 11.68	.255 6.48	.715 18.16	3-87022-3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
.660 16.76	.255 6.48	.915 23.24	3-87022-4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
.860 21.84	.255 6.48	1.115 28.32	3-87022-5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

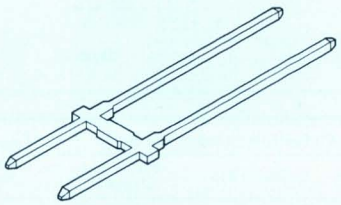
[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000050 [0.00127] gold over .000050 [0.00127] nickel.
[4].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.
[5].000010 [0.00025] gold over .000050 [0.00127] nickel.

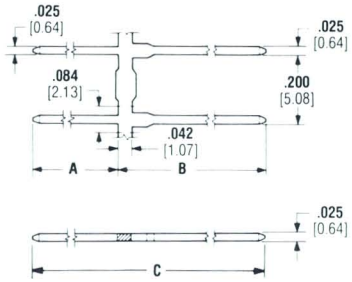
Mod. II — .025 x .025 [0.64 x 0.64] Posts (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

Machine Applied Post

Material: Phosphor Bronze





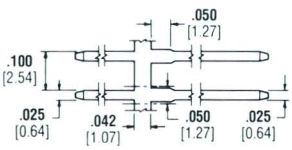
Finish	Dimensions A	Dimensions B	Dimensions C	Part No. (Strip Form)*
Tin	.210 5.33	.227 5.77	.437 11.1	86144-8
	.278 7.06	.165 4.19	.443 11.25	86144-5
	.278 7.06	.738 18.75	1.016 25.81	86144-6
Gold/Nickel[1]	.278 7.06	.165 4.19	.443 11.25	86144-2
	.278 7.06	.284 7.21	.562 14.27	86144-7
	.278 7.06	.738 18.75	1.016 25.81	86144-1
Gold/Nickel[2]	.278 7.06	.165 4.19	.443 11.25	86144-4
	.278 7.06	.738 18.75	1.016 25.81	86144-3

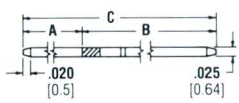
[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.

Note: Not compatible with TERMI-POINT wiring devices, but will accept wrap-type terminations.
*Part Nos. shown are reeled for miniature applicator.

Machine Applied Post

Material: Brass





Finish	Dimensions A	Dimensions B	Dimensions C	Part No. (Strip Form)
Bright Tin/Nickel[1]	.450 11.43	.165 4.19	.615 15.62	87307-1
	.670 17.02	.165 4.19	.835 21.21	1-87307-0
Gold/Nickel[2]	.278 7.06	.165 4.19	.443 11.25	87307-2
	.278 7.06	.255 6.48	.533 13.54	87307-4
	.278 7.06	.350 8.89	.628 15.95	87307-3

[1].000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.

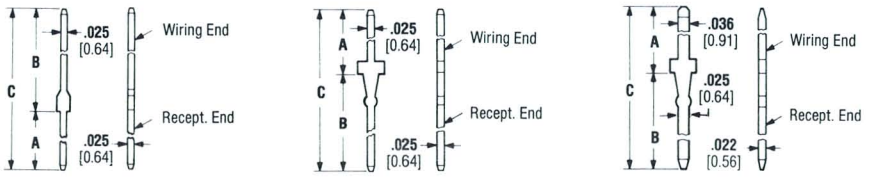
Mod. II — .025 x .025 [0.64 x 0.64] Posts (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Posts Mounted in Polyethylene Strip (For Gang Insertion)

See page 19 for installation

Material: Phosphor Bronze

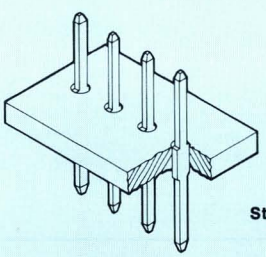


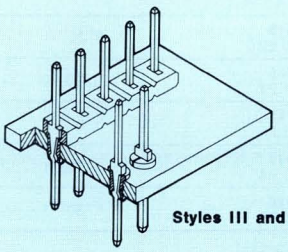
Style	Finish	Dimensions A	Dimensions B	Dimensions C	.100 [2.54] Centerline Spacing Part No.* Single Row	.100 [2.54] Centerline Spacing Part No.* Double Row	.100 [2.54] Centerline Spacing Part No.* Double Row Staggered	.150 [3.81] Centerline Spacing Part No.* Single Row	.150 [3.81] Centerline Spacing Part No.* Double Row	.150 [3.81] Centerline Spacing Part No.* Double Row Staggered	Part No. (Loose Piece)
I	Gold/ Nickel[1]	.318 8.08	.125 3.18	.443 11.25	86090-2	86091-2	86092-2	86093-2	86094-2	86095-2	85931-5
		.318 8.08	.698 17.73	1.016 25.81	86090-1	86091-1	86092-1	86093-1	86094-1	86095-1	85931-2
	Gold/ Nickel[2]	.318 8.08	.125 3.18	.443 11.25	86090-4	86091-4	86092-4	86093-4	86094-4	86095-4	85931-6
		.318 8.08	.698 17.73	1.016 25.81	86090-3	86091-3	86092-3	86093-3	86094-3	86095-3	85931-3
III	Gold/ Nickel[1]	.300 7.62	.429 10.9	.729 18.52	86090-6	86091-6	86092-6	86093-6	86094-6	86095-6	85891-3
		.528 13.41	.429 10.9	.957 24.31	86090-5	86091-5	86092-5	86093-5	86094-5	86095-5	85891-1
	Gold/ Nickel[2]	.300 7.62	.429 10.9	.729 18.52	86090-8	86091-8	86092-8	86093-8	86094-8	86095-8	85891-9
		.528 13.41	.429 10.9	.957 24.31	86090-7	86091-7	86092-7	86093-7	86094-7	86095-7	85891-6
IV	Gold/ Nickel[1]	.560 14.22	.429 10.9	.989 25.12	86090-9	86091-9	86092-9	86093-9	86094-9	86095-9	85979-3
	Gold/ Nickel[2]	.560 14.22	.429 10.9	.989 25.12	1-86090-0	1-86091-0	1-86092-0	1-86093-0	1-86094-0	1-86095-0	85979-4

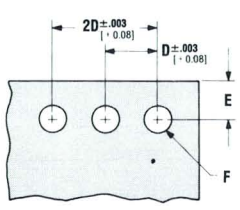
[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
*Strip mounted posts are packaged 10,000 per reel.

Note: Style I posts must be soldered for retention in printed circuit board.

Typical Assemblies

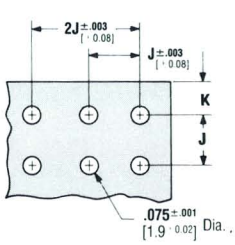

Style I


Styles III and IV



Style I

Mounting Dimensions



Style III and IV

D—Post centers may vary depending on requirements:
Minimum nominal centerline spacing between adjacent contacts is .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate over length of board.
E—Post centerline location from edge of board may vary to satisfy application.
F—Hole Dimensions:

STYLE I—.025 x .025 POST
Boards without plated thru-holes:
Soldered by reflow or reheat operation with carrying strip removed or posts inserted loose piece—.035 [0.89] to .037 [0.94] diameter.
Boards with plated thru-holes:
Soldered by reflow or reheat operation with carrying strip removed or posts inserted loose piece—.034-.038 [0.86-0.97] diameter after copper plating and before any tin-lead plating of the hole.

Required aluminum panel thickness .080 [2.03].
J—Post centerline to be .100 [2.54] or .150 [3.81]; ±.003 [0.08] tolerances not to accumulate within one mating connector or module board pattern.
K—Post centerline location from edge of board may vary to satisfy application.

Grounding Bushing (Fits .075 [1.9] Hole)

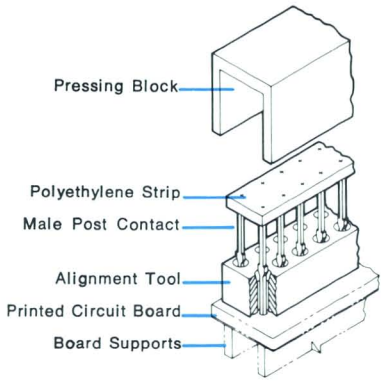
Material: Brass
Plating: Gold over Nickel

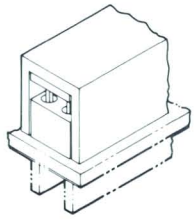
Part No. 86280-2
(Replacement Part No. 86300-2, for use when hole has been enlarged following extraction of Part No. 86280-2)

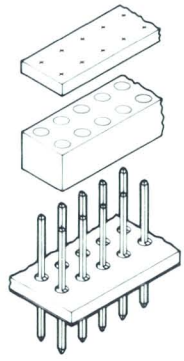
Mod. II — .025 x .025 [0.64 x 0.64] Posts (Cont'd.)

Dimensioning:
1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

Mounting of Style I, Style III, Style IV Posts







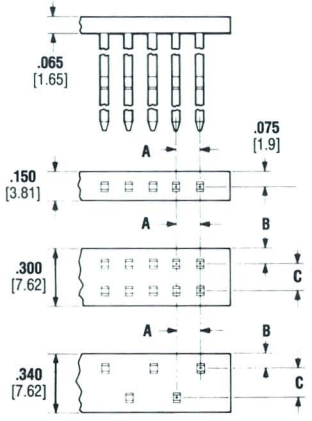
1. Cut polyethylene strip to length.
2. Start posts through alignment tool and into printed circuit board.

3. Bottom pressing block on printed circuit board with arbor press.

4. Remove polyethylene strip and alignment tool.

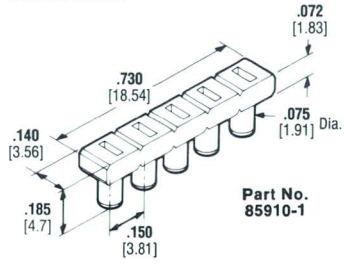
Notes: 1. The above fixturing and tooling are not supplied by AMP.
2. For further details, see AMP I.S. 7410.

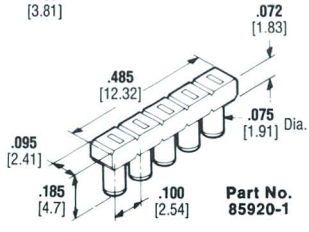
Polyethylene Strip



Polyethylene Strip			
Centerline Spacing	Dimensions		
	A	B	C
.100 2.54	.100 2.54	.100 2.54	.100 2.54
.150 3.81	.150 3.81	.075 1.91	.150 3.81

Insulators



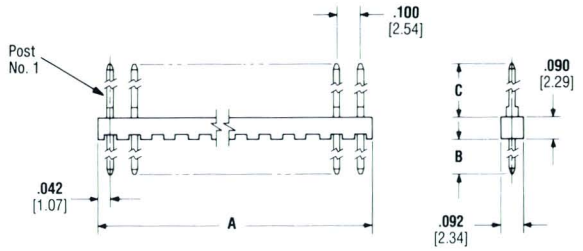


Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies

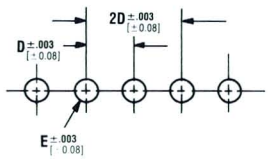
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Single Row, Straight Post Headers .100 [2.54] Centers

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



Recommended Pc Board Hole Layout



D—Post centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	A Dim.	B = .125 [3.18] C = .318 [8.08] E = .035 [0.89]			B = .125 [3.18] C = .600 [15.24] E = .035 [0.89]	B = .154 [3.91] C = .318 [8.08] E = .035 [0.89]	B = .420 [10.67] C = .318 [8.08] E = .040 [1.02]	B = .608 [15.44] C = .318 [8.08] E = .040 [1.02]		
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[2] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
1	.084 2.13	87220-1	87224-1	87348-1	87465-3	87527-1	87470-3	87336-4	87535-1	87536-1
2	.184 4.67	87220-2	87224-2	87348-2	87465-4	87527-2	87470-4	87336-5	87535-2	87536-2
3	.284 7.21	87220-3	87224-3	87348-3	87465-5	87527-3	87470-5	87336-6	87535-3	87536-3
4	.384 9.75	87220-4	87224-4	87348-4	87465-6	87527-4	87470-6	87336-7	87535-4	87536-4
5	.484 12.29	87220-5	87224-5	87348-5	87465-7	87527-5	87470-7	87336-8	87535-5	87536-5
6	.584 14.83	87220-6	87224-6	87348-6	87465-8	87527-6	87470-8	87336-9	87535-6	87536-6
7	.684 17.37	87220-7	87224-7	87348-7	87465-9	87527-7	87470-9	1-87336-0	87535-7	87536-7
8	.784 19.91	87220-8	87224-8	87348-8	87465-1	87527-8	1-87470-0	1-87336-1	87535-8	87536-8
9	.884 22.45	87220-9	87224-9	87348-9	1-87465-0	87527-9	1-87470-1	1-87336-2	87535-9	87536-9
10	.984 24.99	1-87220-0	1-87224-0	1-87348-0	1-87465-1	1-87527-0	1-87470-2	87336-2	1-87535-0	1-87536-0
11	1.084 27.53	1-87220-1	1-87224-1	1-87348-1	1-87465-2	1-87527-1	1-87470-3	1-87336-3	1-87535-1	1-87536-1
12	1.184 30.07	1-87220-2	1-87224-2	1-87348-2	1-87465-3	1-87527-2	1-87470-4	1-87336-4	1-87535-2	1-87536-2
13	1.284 32.61	1-87220-3	1-87224-3	1-87348-3	1-87465-4	1-87527-3	1-87470-5	1-87336-5	1-87535-3	1-87536-3
14	1.384 35.15	1-87220-4	1-87224-4	1-87348-4	1-87465-5	1-87527-4	1-87470-6	1-87336-6	1-87535-4	1-87536-4
15	1.484 37.69	1-87220-5	1-87224-5	1-87348-5	1-87465-6	1-87527-5	1-87470-7	1-87336-7	1-87535-5	1-87536-5

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:

1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

No. of Pos.	A Dim.	B = .125 [3.18] C = .318 [8.08] E = .035 [0.89]			B = .125 [3.18] C = .600 [15.24] E = .035 [0.89]	B = .154 [3.91] C = .318 [8.08] E = .035 [0.89]	B = .420 [10.67] C = .318 [8.08] E = .040 [1.02]	B = .608 [15.44] C = .318 [8.08] E = .040 [1.02]		
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[2] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
16	1.584 40.23	1-87220-6	1-87224-6	1-87348-6	1-87465-7	1-87527-6	1-87470-8	1-87336-8	1-87535-6	1-87536-6
17	1.684 42.77	1-87220-7	1-87224-7	1-87348-7	1-87465-8	1-87527-7	1-87470-9	1-87336-9	1-87535-7	1-87536-7
18	1.784 45.31	1-87220-8	1-87224-8	1-87348-8	1-87465-9	1-87527-8	2-87470-0	2-87336-0	1-87535-8	1-87536-8
19	1.884 47.85	1-87220-9	1-87224-9	1-87348-9	2-87465-0	1-87527-9	2-87470-1	2-87336-1	1-87535-9	1-87536-9
20	1.984 50.39	2-87220-0	2-87224-0	2-87348-0	2-87465-1	2-87527-0	87470-1	87336-3	2-87535-0	2-87536-0
21	2.084 52.93	2-87220-1	2-87224-1	2-87348-1	2-87465-2	2-87527-1	2-87470-2	2-87336-2	2-87535-1	2-87536-1
22	2.184 55.47	2-87220-2	2-87224-2	2-87348-2	2-87465-3	2-87527-2	2-87470-3	2-87336-3	2-87535-2	2-87536-2
23	2.284 58.01	2-87220-3	2-87224-3	2-87348-3	2-87465-4	2-87527-3	2-87470-4	2-87336-4	2-87535-3	2-87536-3
24	2.384 60.55	2-87220-4	2-87224-4	2-87348-4	2-87465-5	2-87527-4	2-87470-5	2-87336-5	2-87535-4	2-87536-4
25	2.484 63.09	2-87220-5	2-87224-5	2-87348-5	2-87465-6	2-87527-5	2-87470-6	2-87336-6	2-87535-5	2-87536-5
26	2.584 65.63	2-87220-6	2-87224-6	2-87348-6	2-87465-7	2-87527-6	2-87470-7	2-87336-7	2-87535-6	2-87536-6
27	2.684 68.17	2-87220-7	2-87224-7	2-87348-7	2-87465-8	2-87527-7	2-87470-8	2-87336-8	2-87535-7	2-87536-7
28	2.784 70.71	2-87220-8	2-87224-8	2-87348-8	2-87465-9	2-87527-8	2-87470-9	2-87336-9	2-87535-8	2-87536-8
29	2.884 73.25	2-87220-9	2-87224-9	2-87348-9	3-87465-0	2-87527-9	3-87470-0	3-87336-0	2-87535-9	2-87536-9
30	2.984 75.79	3-87220-0	3-87224-0	3-87348-0	3-87465-1	3-87527-0	3-87470-1	3-87336-1	3-87535-0	3-87536-0
31	3.084 78.33	3-87220-1	3-87224-1	3-87348-1	3-87465-2	3-87527-1	3-87470-2	3-87336-2	3-87535-1	3-87536-1
32	3.184 80.87	3-87220-2	3-87224-2	3-87348-2	3-87465-3	3-87527-2	3-87470-3	3-87336-3	3-87535-2	3-87536-2
33	3.284 83.41	3-87220-3	3-87224-3	3-87348-3	3-87465-4	3-87527-3	3-87470-4	3-87336-4	3-87535-3	3-87536-3
34	3.384 85.95	3-87220-4	3-87224-4	3-87348-4	3-87465-5	3-87527-4	3-87470-5	3-87336-5	3-87535-4	3-87536-4
35	3.484 88.49	3-87220-5	3-87224-5	3-87348-5	3-87465-6	3-87527-5	3-87470-6	3-87336-6	3-87535-5	3-87536-5
36	3.584 91.03	3-87220-6	3-87224-6	3-87348-6	3-87465-7	3-87527-6	3-87470-7	87336-1	3-87535-6	3-87536-6
37	3.684 93.57	3-87220-7	3-87224-7	3-87348-7	3-87465-8	3-87527-7	3-87470-8	3-87336-7	3-87535-7	3-87536-7
38	3.784 96.11	3-87220-8	3-87224-8	3-87348-8	3-87465-9	3-87527-8	3-87470-9	3-87336-8	3-87535-8	3-87536-8
39	3.884 98.65	3-87220-9	3-87224-9	3-87348-9	4-87465-0	3-87527-9	4-87470-0	3-87336-9	3-87535-9	3-87536-9
40	3.984 101.19	4-87220-0	4-87224-0	4-87348-0	87465-2	4-87527-0	87470-2	4-87336-0	4-87535-0	4-87536-0

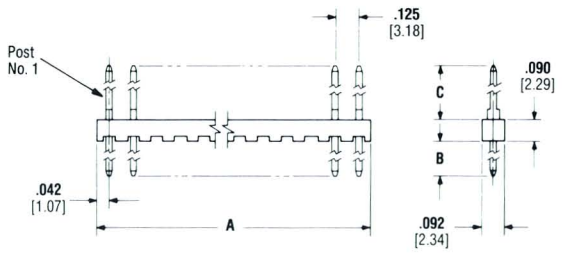
[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

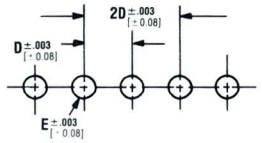
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Single Row, Straight Post Headers .125 [3.18] Centers

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



Recommended Pc Board Hole Layout



D—Post centerline to be .125 [3.18]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	A Dim.	B = .125 [3.18] C = .318 [8.08] E = .035 [0.89]				B = .608 [15.44] C = .318 [8.08] E = .040 [1.02]		
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Gold/Nickel[2] Plated Posts*	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
2	.209 5.31	87207-4	87226-1	87404-2	87369-2	87537-1	87538-1	87539-1
3	.334 8.48	87207-5	87226-2	87404-3	87369-3	87537-2	87538-2	87539-2
4	.459 11.66	87207-1	87226-3	87404-4	87369-4	87537-3	87538-3	87539-3
5	.584 14.83	87207-6	87226-4	87404-1	87369-5	87537-4	87538-4	87539-4
6	.709 18.01	87207-7	87226-5	87404-5	87369-6	87537-5	87538-5	87539-5
7	.834 21.18	87207-8	87226-6	87404-6	87369-7	87537-6	87538-6	87539-6
8	.959 24.36	87207-9	87226-7	87404-7	87369-8	87537-7	87538-7	87539-7
9	1.084 27.53	1-87207-0	87226-8	87404-8	87369-9	87537-8	87538-8	87539-8
10	1.209 30.71	1-87207-1	87226-9	87404-9	1-87369-0	87537-9	87538-9	87539-9
11	1.334 33.88	1-87207-2	1-87226-0	1-87404-0	1-87369-1	1-87537-0	1-87538-0	1-87539-0
12	1.459 37.06	1-87207-3	1-87226-1	1-87404-1	1-87369-2	1-87537-1	1-87538-1	1-87539-1
13	1.584 40.23	1-87207-4	1-87226-2	1-87404-2	1-87369-3	1-87537-2	1-87538-2	1-87539-2
14	1.709 43.41	87207-3	1-87226-3	1-87404-3	1-87369-4	1-87537-3	1-87538-3	1-87539-3
15	1.834 46.58	1-87207-5	1-87226-4	1-87404-4	1-87369-5	1-87537-4	1-87538-4	1-87539-4
16	1.959 49.76	1-87207-6	1-87226-5	1-87404-5	1-87369-6	1-87537-5	1-87538-5	1-87539-5
17	2.084 52.93	1-87207-7	1-87226-6	1-87404-6	1-87369-7	1-87537-6	1-87538-6	1-87539-6
18	2.209 56.11	1-87207-8	1-87226-7	1-87404-7	1-87369-8	1-87537-7	1-87538-7	1-87539-7
19	2.334 59.28	1-87207-9	1-87226-8	1-87404-8	1-87369-9	1-87537-8	1-87538-8	1-87539-8
20	2.459 62.46	2-87207-0	1-87226-9	1-87404-9	2-87369-0	1-87537-9	1-87538-9	1-87539-9
21	2.584 65.63	2-87207-1	2-87226-0	2-87404-0	2-87369-1	2-87537-0	2-87538-0	2-87539-0
22	2.709 68.81	2-87207-2	2-87226-1	2-87404-1	2-87369-2	2-87537-1	2-87538-1	2-87539-1
23	2.834 71.98	2-87207-3	2-87226-2	2-87404-2	2-87369-3	2-87537-2	2-87538-2	2-87539-2
24	2.959 75.16	2-87207-4	2-87226-3	2-87404-3	2-87369-4	2-87537-3	2-87538-3	2-87539-3
25	3.084 78.33	2-87207-5	2-87226-4	2-87404-4	2-87369-5	2-87537-4	2-87538-4	2-87539-4
26	3.209 81.51	2-87207-6	2-87226-5	2-87404-5	2-87369-6	2-87537-5	2-87538-5	2-87539-5
27	3.334 84.68	2-87207-7	2-87226-6	2-87404-6	2-87369-7	2-87537-6	2-87538-6	2-87539-6
28	3.459 87.86	2-87207-8	2-87226-7	2-87404-7	2-87369-8	2-87537-7	2-87538-7	2-87539-7
29	3.584 91.03	87207-2	2-87226-8	2-87404-8	2-87369-9	2-87537-8	2-87538-8	2-87539-8
30	3.709 94.21	2-87207-9	2-87226-9	2-87404-9	3-87369-0	2-87537-9	2-87538-9	2-87539-9
31	3.834 97.38	3-87207-0	3-87226-0	3-87404-0	3-87369-1	3-87537-0	3-87538-0	3-87539-0
32	3.959 100.56	3-87207-1	3-87226-1	3-87404-1	3-87369-2	3-87537-1	3-87538-1	3-87539-1

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

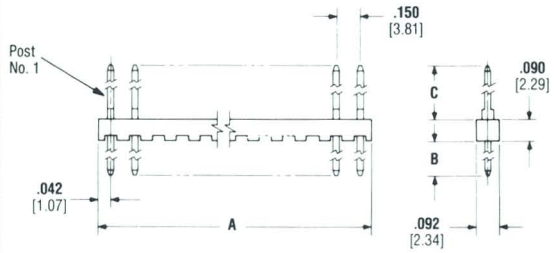
*Post No. 2 is omitted for keying purposes.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

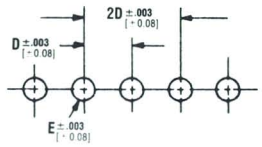
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Single Row, Straight Post Headers .150 [3.81] Centers

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



Recommended Pc Board Hole Layout



D—Post centerline to be .150 [3.81]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	A Dim.	B=.125 [3.18] C=.318 [8.08] E=.035 [0.89]			B=.125 [3.18] C=.500 [12.7] E=.035 [0.89]	B=.154 [3.91] C=.318 [8.08] E=.035 [0.89]	B=.608 [15.44] C=.318 [8.08] E=.040 [1.02]		
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
1	.084 2.13	—	—	—	87519-2	87438-8	—	—	—
2	.234 5.94	87221-1	87225-1	87534-1	87519-3	87438-9	87540-1	87530-1	87542-1
3	.384 9.75	87221-2	87225-2	87534-2	87519-4	1-87438-0	87540-2	87530-2	87542-2
4	.534 13.56	87221-3	87225-3	87534-3	87519-5	1-87438-1	87540-3	87530-3	87542-3
5	.684 17.37	87221-4	87225-4	87534-4	87519-6	1-87438-2	87540-4	87530-4	87542-4
6	.834 21.18	87221-5	87225-5	87534-5	87519-7	1-87438-3	87540-5	87530-5	87542-5
7	.984 24.99	87221-6	87225-6	87534-6	87519-8	1-87438-4	87540-6	87530-6	87542-6
8	1.134 28.8	87221-7	87225-7	87534-7	87519-9	1-87438-5	87540-7	87530-7	87542-7
9	1.284 32.61	87221-8	87225-8	87534-8	1-87519-0	1-87438-6	87540-8	87530-8	87542-8
10	1.434 36.42	87221-9	87225-9	87534-9	1-87519-1	1-87438-7	87540-9	87530-9	87542-9
11	1.584 40.23	1-87221-0	1-87225-0	1-87534-0	1-87519-2	1-87438-8	1-87540-0	1-87530-0	1-87542-0
12	1.734 44.04	1-87221-1	1-87225-1	1-87534-1	1-87519-3	87438-1	1-87540-1	1-87530-1	1-87542-1
13	1.884 47.85	1-87221-2	1-87225-2	1-87534-2	87519-1	87438-2	1-87540-2	1-87530-2	1-87542-2
14	2.034 51.66	1-87221-3	1-87225-3	1-87534-3	1-87519-4	1-87438-9	1-87540-3	1-87530-3	1-87542-3
15	2.184 55.47	1-87221-4	1-87225-4	1-87534-4	1-87519-5	2-87438-0	1-87540-4	1-87530-4	1-87542-4
16	2.334 59.28	1-87221-5	1-87225-5	1-87534-5	1-87519-6	87438-3	1-87540-5	1-87530-5	1-87542-5
17	2.484 63.09	1-87221-6	1-87225-6	1-87534-6	1-87519-7	87438-4	1-87540-6	1-87530-6	1-87542-6
18	2.634 66.9	1-87221-7	1-87225-7	1-87534-7	1-87519-8	87438-5	1-87540-7	1-87530-7	1-87542-7
19	2.784 70.71	1-87221-8	1-87225-8	1-87534-8	1-87519-9	87438-6	1-87540-8	1-87530-8	1-87542-8
20	2.934 74.52	1-87221-9	1-87225-9	1-87534-9	2-87519-0	2-87438-1	1-87540-9	1-87530-9	1-87542-9
21	3.084 78.33	2-87221-0	2-87225-0	2-87534-0	2-87519-1	2-87438-2	2-87540-0	2-87530-0	2-87542-0
22	3.234 82.14	2-87221-1	2-87225-1	2-87534-1	2-87519-2	2-87438-3	2-87540-1	2-87530-1	2-87542-1
23	3.384 85.95	2-87221-2	2-87225-2	2-87534-2	2-87519-3	2-87438-4	2-87540-2	2-87530-2	2-87542-2
24	3.534 89.76	2-87221-3	2-87225-3	2-87534-3	2-87519-4	2-87438-5	2-87540-3	2-87530-3	2-87542-3
25	3.684 93.57	2-87221-4	2-87225-4	2-87534-4	2-87519-5	2-87438-6	2-87540-4	2-87530-4	2-87542-4
26	3.834 97.38	2-87221-5	2-87225-5	2-87534-5	2-87519-6	87438-7	2-87540-5	2-87530-5	2-87542-5
27	3.984 101.19	2-87221-6	2-87225-6	2-87534-6	2-87519-7	2-87438-7	2-87540-6	2-87530-6	2-87542-6

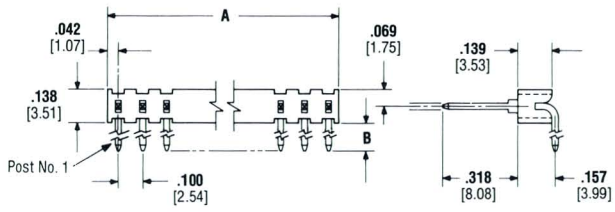
[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

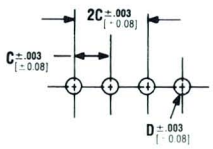
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Single Row, Right Angle Post Headers .100 [2.54] Centers

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



Recommended Pc Board Hole Layout



C—Post centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	A Dim.	B=.110 [2.79] D=.035 [0.89]				B=.720 [18.29] D=.040 [1.02]		
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Gold/Nickel[2] Plated Posts*	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
1	.084 2.13	87232-1	87233-1	—	87551-1	87554-1	87555-1	87556-1
2	.184 4.67	87232-2	87233-2	—	87551-2	87554-2	87555-2	87556-2
3	.284 7.21	87232-3	87233-3	—	87551-3	87554-3	87555-3	87556-3
4	.384 9.75	87232-4	87233-4	—	87551-4	87554-4	87555-4	87556-4
5	.484 12.29	87232-5	87233-5	—	87551-5	87554-5	87555-5	87556-5
6	.584 14.83	87232-6	87233-6	87528-2	87551-6	87554-6	87555-6	87556-6
7	.684 17.37	87232-7	87233-7	87528-3	87551-7	87554-7	87555-7	87556-7
8	.784 19.91	87232-8	87233-8	87528-1	87551-8	87554-8	87555-8	87556-8
9	.884 22.45	87232-9	87233-9	87528-4	87551-9	87554-9	87555-9	87556-9
10	.984 24.99	1-87232-0	1-87233-0	87528-5	1-87551-0	1-87554-0	1-87555-0	1-87556-0
11	1.084 27.53	1-87232-1	1-87233-1	87528-6	1-87551-1	1-87554-1	1-87555-1	1-87556-1
12	1.184 30.07	1-87232-2	1-87233-2	87528-7	1-87551-2	1-87554-2	1-87555-2	1-87556-2
13	1.284 32.61	1-87232-3	1-87233-3	87528-8	1-87551-3	1-87554-3	1-87555-3	1-87556-3
14	1.384 35.15	1-87232-4	1-87233-4	87528-9	1-87551-4	1-87554-4	1-87555-4	1-87556-4
15	1.484 37.69	1-87232-5	1-87233-5	1-87528-0	1-87551-5	1-87554-5	1-87555-5	1-87556-5

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

*Post No. 6 is omitted for keying purposes.

Mod. II — .025 x .025 [0.64 x 0.64]
Header Assemblies (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

No. of Pos.	A Dim.	B=.110 [2.79] D=.035 [0.89]				B=.720 [18.29] D=.040 [1.02]		
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Gold/Nickel[2] Plated Posts*	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
16	**1.584** 40.23	1-87232-6	1-87233-6	1-87528-1	1-87551-6	1-87554-6	1-87555-6	1-87556-6
17	**1.684** 42.77	1-87232-7	1-87233-7	1-87528-2	1-87551-7	1-87554-7	1-87555-7	1-87556-7
18	**1.784** 45.31	1-87232-8	1-87233-8	1-87528-3	1-87551-8	1-87554-8	1-87555-8	1-87556-8
19	**1.884** 47.85	1-87232-9	1-87233-9	1-87528-4	1-87551-9	1-87554-9	1-87555-9	1-87556-9
20	**1.984** 50.39	2-87232-0	2-87233-0	1-87528-5	2-87551-0	2-87554-0	2-87555-0	2-87556-0
21	**2.084** 52.93	2-87232-1	2-87233-1	1-87528-6	2-87551-1	2-87554-1	2-87555-1	2-87556-1
22	**2.184** 55.47	2-87232-2	2-87233-2	1-87528-7	2-87551-2	2-87554-2	2-87555-2	2-87556-2
23	**2.284** 58.01	2-87232-3	2-87233-3	1-87528-8	2-87551-3	2-87554-3	2-87555-3	2-87556-3
24	**2.384** 60.55	2-87232-4	2-87233-4	1-87528-9	2-87551-4	2-87554-4	2-87555-4	2-87556-4
25	**2.484** 63.09	2-87232-5	2-87233-5	2-87528-0	2-87551-5	2-87554-5	2-87555-5	2-87556-5
26	**2.584** 65.63	2-87232-6	2-87233-6	2-87528-1	2-87551-6	2-87554-6	2-87555-6	2-87556-6
27	**2.684** 68.17	2-87232-7	2-87233-7	2-87528-2	2-87551-7	2-87554-7	2-87555-7	2-87556-7
28	**2.784** 70.71	2-87232-8	2-87233-8	2-87528-3	2-87551-8	2-87554-8	2-87555-8	2-87556-8
29	**2.884** 73.25	2-87232-9	2-87233-9	2-87528-4	2-87551-9	2-87554-9	2-87555-9	2-87556-9
30	**2.984** 75.79	3-87232-0	3-87233-0	2-87528-5	3-87551-0	3-87554-0	3-87555-0	3-87556-0
31	**3.084** 78.33	3-87232-1	3-87233-1	2-87528-6	3-87551-1	3-87554-1	3-87555-1	3-87556-1
32	**3.184** 80.87	3-87232-2	3-87233-2	2-87528-7	3-87551-2	3-87554-2	3-87555-2	3-87556-2
33	**3.284** 83.41	3-87232-3	3-87233-3	2-87528-8	3-87551-3	3-87554-3	3-87555-3	3-87556-3
34	**3.384** 85.95	3-87232-4	3-87233-4	2-87528-9	3-87551-4	3-87554-4	3-87555-4	3-87556-4
35	**3.484** 88.49	3-87232-5	3-87233-5	3-87528-0	3-87551-5	3-87554-5	3-87555-5	3-87556-5
36	**3.584** 91.03	3-87232-6	3-87233-6	3-87528-1	3-87551-6	3-87554-6	3-87555-6	3-87556-6
37	**3.684** 93.57	3-87232-7	3-87233-7	3-87528-2	3-87551-7	3-87554-7	3-87555-7	3-87556-7
38	**3.784** 96.11	3-87232-8	3-87233-8	3-87528-3	3-87551-8	3-87554-8	3-87555-8	3-87556-8
39	**3.884** 98.65	3-87232-9	3-87233-9	3-87528-4	3-87551-9	3-87554-9	3-87555-9	3-87556-9
40	**3.984** 101.19	4-87232-0	4-87233-0	3-87528-5	4-87551-0	4-87554-0	4-87555-0	4-87556-0

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

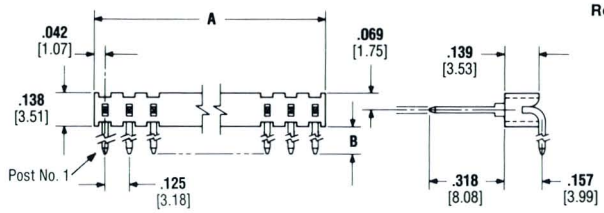
*Post No. 6 is omitted for keying purposes.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

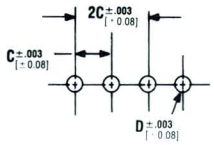
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Single Row, Right Angle Post Headers .125 [3.18] Centers

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



Recommended Pc Board Hole Layout



C—Post centerline to be .125 [3.18]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	A Dim.	B=.110 [2.79] D=.035 [0.89]			B=.720 [18.29] D=.040 [1.02]		
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
2	.209 5.31	87234-1	87235-1	87552-1	87557-1	87558-1	87559-1
3	.334 8.48	87234-2	87235-2	87552-2	87557-2	87558-2	87559-2
4	.459 11.66	87234-3	87235-3	87552-3	87557-3	87558-3	87559-3
5	.584 14.83	87234-4	87235-4	87552-4	87557-4	87558-4	87559-4
6	.709 18.01	87234-5	87235-5	87552-5	87557-5	87558-5	87559-5
7	.834 21.18	87234-6	87235-6	87552-6	87557-6	87558-6	87559-6
8	.959 24.36	87234-7	87235-7	87552-7	87557-7	87558-7	87559-7
9	1.084 27.53	87234-8	87235-8	87552-8	87557-8	87558-8	87559-8
10	1.209 30.71	87234-9	87235-9	87552-9	87557-9	87558-9	87559-9
11	1.334 33.88	1-87234-0	1-87235-0	1-87552-0	1-87557-0	1-87558-0	1-87559-0
12	1.459 37.06	1-87234-1	1-87235-1	1-87552-1	1-87557-1	1-87558-1	1-87559-1
13	1.584 40.23	1-87234-2	1-87235-2	1-87552-2	1-87557-2	1-87558-2	1-87559-2
14	1.709 43.41	1-87234-3	1-87235-3	1-87552-3	1-87557-3	1-87558-3	1-87559-3
15	1.834 46.58	1-87234-4	1-87235-4	1-87552-4	1-87557-4	1-87558-4	1-87559-4
16	1.959 49.76	1-87234-5	1-87235-5	1-87552-5	1-87557-5	1-87558-5	1-87559-5
17	2.084 52.93	1-87234-6	1-87235-6	1-87552-6	1-87557-6	1-87558-6	1-87559-6
18	2.209 56.11	1-87234-7	1-87235-7	1-87552-7	1-87557-7	1-87558-7	1-87559-7
19	2.334 59.28	1-87234-8	1-87235-8	1-87552-8	1-87557-8	1-87558-8	1-87559-8
20	2.459 62.46	1-87234-9	1-87235-9	1-87552-9	1-87557-9	1-87558-9	1-87559-9
21	2.584 65.63	2-87234-0	2-87235-0	2-87552-0	2-87557-0	2-87558-0	2-87559-0
22	2.709 68.81	2-87234-1	2-87235-1	2-87552-1	2-87557-1	2-87558-1	2-87559-1
23	2.834 71.98	2-87234-2	2-87235-2	2-87552-2	2-87557-2	2-87558-2	2-87559-2
24	2.959 75.16	2-87234-3	2-87235-3	2-87552-3	2-87557-3	2-87558-3	2-87559-3
25	3.084 78.33	2-87234-4	2-87235-4	2-87552-4	2-87557-4	2-87558-4	2-87559-4
26	3.209 81.51	2-87234-5	2-87235-5	2-87552-5	2-87557-5	2-87558-5	2-87559-5
27	3.334 84.68	2-87234-6	2-87235-6	2-87552-6	2-87557-6	2-87558-6	2-87559-6
28	3.459 87.86	2-87234-7	2-87235-7	2-87552-7	2-87557-7	2-87558-7	2-87559-7
29	3.584 91.03	2-87234-8	2-87235-8	2-87552-8	2-87557-8	2-87558-8	2-87559-8
30	3.709 94.21	2-87234-9	2-87235-9	2-87552-9	2-87557-9	2-87558-9	2-87559-9
31	3.834 97.38	3-87234-0	3-87235-0	3-87552-0	3-87557-0	3-87558-0	3-87559-0
32	3.959 100.56	3-87234-1	3-87235-1	3-87552-1	3-87557-1	3-87558-1	3-87559-1

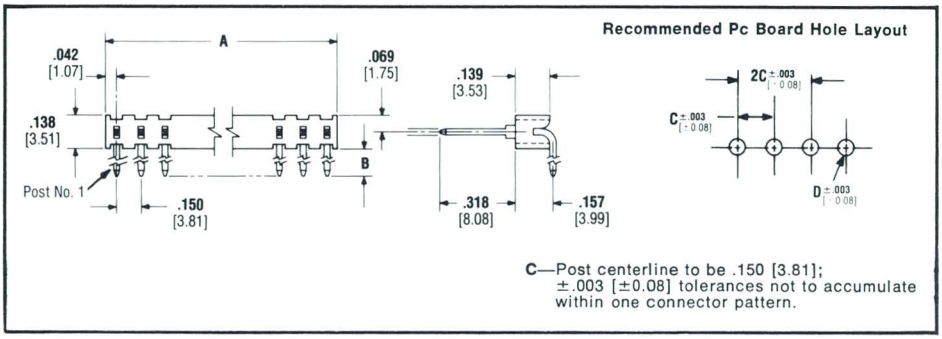
[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .0C0050 [0.00127] nickel.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Single Row, Right Angle Post Headers .150 [3.81] Centers

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



C—Post centerline to be .150 [3.81]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	A Dim.	B=.110 [2.79] D=.035 [0.89]			B=.720 [18.29] D=.040 [1.02]		
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
2	.234 5.94	87236-1	87237-1	87553-1	87560-1	87561-1	87562-1
3	.384 9.75	87236-2	87237-2	87553-2	87560-2	87561-2	87562-2
4	.534 13.56	87236-3	87237-3	87553-3	87560-3	87561-3	87562-3
5	.684 17.37	87236-4	87237-4	87553-4	87560-4	87561-4	87562-4
6	.834 21.18	87236-5	87237-5	87553-5	87560-5	87561-5	87562-5
7	.984 24.99	87236-6	87237-6	87553-6	87560-6	87561-6	87562-6
8	1.134 28.8	87236-7	87237-7	87553-7	87560-7	87561-7	87562-7
9	1.284 32.61	87236-8	87237-8	87553-8	87560-8	87561-8	87562-8
10	1.434 36.42	87236-9	87237-9	87553-9	87560-9	87561-9	87562-9
11	1.584 40.23	1-87236-0	1-87237-0	1-87553-0	1-87560-0	1-87561-0	1-87562-0
12	1.734 18.64	1-87236-1	1-87237-1	1-87553-1	1-87560-1	1-87561-1	1-87562-1
13	1.884 47.85	1-87236-2	1-87237-2	1-87553-2	1-87560-2	1-87561-2	1-87562-2
14	2.034 51.66	1-87236-3	1-87237-3	1-87553-3	1-87560-3	1-87561-3	1-87562-3
15	2.184 55.47	1-87236-4	1-87237-4	1-87553-4	1-87560-4	1-87561-4	1-87562-4
16	2.334 59.28	1-87236-5	1-87237-5	1-87553-5	1-87560-5	1-87561-5	1-87562-5
17	2.484 63.09	1-87236-6	1-87237-6	1-87553-6	1-87560-6	1-87561-6	1-87562-6
18	2.634 66.9	1-87236-7	1-87237-7	1-87553-7	1-87560-7	1-87561-7	1-87562-7
19	2.784 70.71	1-87236-8	1-87237-8	1-87553-8	1-87560-8	1-87561-8	1-87562-8
20	2.934 74.52	1-87236-9	1-87237-9	1-87553-9	1-87560-9	1-87561-9	1-87562-9
21	3.084 78.33	2-87236-0	2-87237-0	2-87553-0	2-87560-0	2-87561-0	2-87562-0
22	3.234 82.14	2-87236-1	2-87237-1	2-87553-1	2-87560-1	2-87561-1	2-87562-1
23	3.384 85.95	2-87236-2	2-87237-2	2-87553-2	2-87560-2	2-87561-2	2-87562-2
24	3.534 89.76	2-87236-3	2-87237-3	2-87553-3	2-87560-3	2-87561-3	2-87562-3
25	3.684 93.57	2-87236-4	2-87237-4	2-87553-4	2-87560-4	2-87561-4	2-87562-4
26	3.834 97.38	2-87236-5	2-87237-5	2-87553-5	2-87560-5	2-87561-5	2-87562-5
27	3.984 101.19	2-87236-6	2-87237-6	2-87553-6	2-87560-6	2-87561-6	2-87562-6

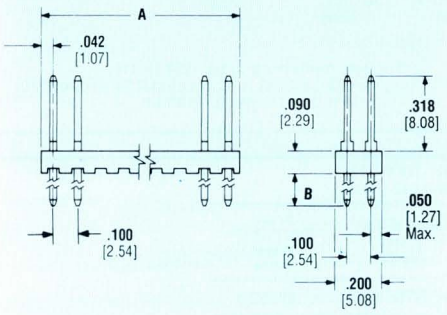
[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

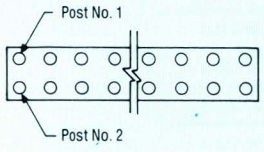
Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Double Row, Straight Post Headers .100 [2.54] Centers

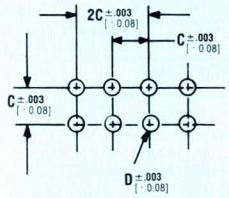
Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze





Top View

Recommended Pc Board Hole Layout



C—Post centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	A Dim.	B=.125 [3.18] D=.035 [0.89] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Gold/Nickel[2] Plated Posts*	Bright Tin/Nickel[3] Plated Posts	Bright Tin/Nickel[3] Plated Posts*
2	.084 2.13	1-87215-0	87227-1	—	87543-1	—
4	.184 4.67	1-87215-1	87227-2	—	87543-2	—
6	.284 7.21	1-87215-2	87227-3	87502-2	87543-3	87305-5
8	.384 9.75	87215-1	87227-4	87502-3	87543-4	87305-6
10	.484 12.29	87215-2	87227-5	87502-4	87543-5	87305-7
12	.584 14.83	87215-3	87227-6	87502-5	87543-6	87305-8
14	.684 17.37	87215-4	82227-7	87502-6	87543-7	87305-1
16	.784 19.91	87215-5	87227-8	87502-7	87543-8	87305-9
18	.884 22.45	87215-6	87227-9	87502-8	87543-9	1-87305-0
20	.984 24.99	87215-7	1-87227-0	87502-9	1-87543-0	1-87305-1
22	1.084 27.53	1-87215-3	1-87227-1	1-87502-0	1-87543-1	1-87305-2
24	1.184 30.07	87215-8	1-87227-2	1-87502-1	1-87543-2	1-87305-3
26	1.284 32.61	87215-9	1-87227-3	87502-1	1-87543-3	1-87305-4
28	1.384 35.15	1-87215-4	1-87227-4	1-87502-2	1-87543-4	1-87305-5
30	1.484 37.69	1-87215-5	1-87227-5	1-87502-3	1-87543-5	1-87305-6
32	1.584 40.23	1-87215-6	1-87227-6	1-87502-4	1-87543-6	1-87305-7
34	1.684 42.77	1-87215-7	1-87227-7	1-87502-5	1-87543-7	1-87305-8
36	1.784 45.31	1-87215-8	1-87227-8	1-87502-6	1-87543-8	1-87305-9
38	1.884 47.85	1-87215-9	1-87227-9	1-87502-7	1-87543-9	2-87305-0
40	1.984 50.39	2-87215-0	2-87227-0	1-87502-8	2-87543-0	2-87305-1
42	2.084 52.93	2-87215-1	2-87227-1	1-87502-9	2-87543-1	2-87305-2
44	2.184 55.47	2-87215-2	2-87227-2	2-87502-0	2-87543-2	2-87305-3
46	2.284 58.01	2-87215-3	2-87227-3	2-87502-1	2-87543-3	2-87305-4
48	2.384 60.55	2-87215-4	2-87227-4	2-87502-2	2-87543-4	2-87305-5
50	2.484 63.09	2-87215-5	2-87227-5	2-87502-3	2-87543-5	2-87305-6
52	2.584 65.63	2-87215-6	2-87227-6	2-87502-4	2-87543-6	2-87305-7
54	2.684 68.17	2-87215-7	2-87227-7	2-87502-5	2-87543-7	2-87305-8
56	2.784 70.71	2-87215-8	2-87227-8	2-87502-6	2-87543-8	2-87305-9
58	2.884 73.25	2-87215-9	2-87227-9	2-87502-7	2-87543-9	3-87305-0
60	2.984 75.79	3-87215-0	3-87227-0	2-87502-8	3-87543-0	3-87305-1
62	3.084 78.33	3-87215-1	3-87227-1	2-87502-9	3-87543-1	3-87305-2
64	3.184 80.87	3-87215-2	3-87227-2	3-87502-0	3-87543-2	3-87305-3
66	3.284 83.41	3-87215-3	3-87227-3	3-87502-1	3-87543-3	3-87305-4
68	3.384 85.95	3-87215-4	3-87227-4	3-87502-2	3-87543-4	3-87305-5
70	3.484 88.49	3-87215-5	3-87227-5	3-87502-3	3-87543-5	3-87305-6
72	3.584 91.03	3-87215-6	3-87227-6	3-87502-4	3-87543-6	3-87305-7
74	3.684 93.57	3-87215-7	3-87227-7	3-87502-5	3-87543-7	3-87305-8
76	3.784 96.11	3-87215-8	3-87227-8	3-87502-6	3-87543-8	3-87305-9
78	3.884 98.65	3-87215-9	3-87227-9	3-87502-7	3-87543-9	4-87305-0
80	3.984 101.19	4-87215-0	4-87227-0	3-87502-8	4-87543-0	4-87305-1

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

*Post No. 6 is omitted for keying purposes.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:

1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

No. of Pos.	A Dim.	B=.220 [5.59] D=.040 [1.02]	B=.280 [7.11] D=.040 [1.02]		B=.420 [10.67] D=.040 [1.02]		B=.520 [13.21] D=.040 [1.02]	B=.608 [15.44] D=.040 [1.02]		
		Gold/Nickel[2] Plated Posts	Gold/Nickel[2] Plated Posts	Gold/Nickel[2] Plated Posts*	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
2	.084 2.13	87346-7	87361-2	—	87408-2	87507-1	87422-3	87545-1	87546-1	87547-1
4	.184 4.67	87346-3	87361-3	—	87408-3	87507-2	87422-4	87545-2	87546-2	87547-2
6	.284 7.21	87346-8	87361-4	87451-2	87408-4	87507-3	87422-5	87545-3	87546-3	87547-3
8	.384 9.75	87346-9	87361-5	87451-3	87408-5	87507-4	87422-6	87545-4	87546-4	87547-4
10	.484 12.29	87346-5	87361-6	87451-4	87408-6	87507-5	87422-7	87545-5	87546-5	87547-5
12	.584 14.83	1-87346-0	87361-7	87451-5	87408-7	87507-6	87422-8	87545-6	87546-6	87547-6
14	.684 17.37	1-87346-1	87361-8	87451-6	87408-8	87507-7	87422-9	87545-7	87546-7	87547-7
16	.784 19.91	1-87346-2	87361-9	87451-1	87408-9	87507-8	1-87422-0	87545-8	87546-8	87547-8
18	.884 22.45	1-87346-3	1-87361-0	87451-7	1-87408-0	87507-9	1-87422-1	87545-9	87546-9	87547-9
20	.984 24.99	87346-1	1-87361-1	87451-8	1-87408-1	1-87507-0	1-87422-2	1-87545-0	1-87546-0	1-87547-0
22	1.084 27.53	1-87346-4	1-87361-2	87451-9	1-87408-2	1-87507-1	1-87422-3	1-87545-1	1-87546-1	1-87547-1
24	1.184 30.07	1-87346-5	1-87361-3	1-87451-0	1-87408-3	1-87507-2	1-87422-4	1-87545-2	1-87546-2	1-87547-2
26	1.284 32.61	87346-2	1-87361-4	1-87451-1	1-87408-4	1-87507-3	1-87422-5	1-87545-3	1-87546-3	1-87547-3
28	1.384 35.15	1-87346-6	87361-1	1-87451-2	1-87408-5	1-87507-4	1-87422-6	1-87545-4	1-87546-4	1-87547-4
30	1.484 37.69	1-87346-7	1-87361-5	1-87451-3	1-87408-6	1-87507-5	1-87422-7	1-87545-5	1-87546-5	1-87547-5
32	1.584 40.23	1-87346-8	1-87361-6	1-87451-4	1-87408-7	1-87507-6	1-87422-8	1-87545-6	1-87546-6	1-87547-6
34	1.684 42.77	1-87346-9	1-87361-7	1-87451-5	1-87408-8	1-87507-7	1-87422-9	1-87545-7	1-87546-7	1-87547-7
36	1.784 45.31	2-87346-0	1-87361-8	1-87451-6	1-87408-9	1-87507-8	2-87422-0	1-87545-8	1-87546-8	1-87547-8
38	1.884 47.85	2-87346-1	1-87361-9	1-87451-7	87408-1	1-87507-9	2-87422-1	1-87545-9	1-87546-9	1-87547-9
40	1.984 50.39	87346-6	2-87361-0	1-87451-8	2-87408-0	2-87507-0	87422-1	2-87545-0	2-87546-0	2-87547-0
42	2.084 52.93	2-87346-2	2-87361-1	1-87451-9	2-87408-1	2-87507-1	87422-2	2-87545-1	2-87546-1	2-87547-1
44	2.184 55.47	2-87346-3	2-87361-2	2-87451-0	2-87408-2	2-87507-2	2-87422-2	2-87545-2	2-87546-2	2-87547-2
46	2.284 58.01	2-87346-4	2-87361-3	2-87451-1	2-87408-3	2-87507-3	2-87422-3	2-87545-3	2-87546-3	2-87547-3
48	2.384 60.55	2-87346-5	2-87361-4	2-87451-2	2-87408-4	2-87507-4	2-87422-4	2-87545-4	2-87546-4	2-87547-4
50	2.484 63.09	87346-4	2-87361-5	2-87451-3	2-87408-5	2-87507-5	2-87422-5	2-87545-5	2-87546-5	2-87547-5
52	2.584 65.63	2-87346-6	2-87361-6	2-87451-4	2-87408-6	2-87507-6	2-87422-6	2-87545-6	2-87546-6	2-87547-6
54	2.684 68.17	2-87346-7	2-87361-7	2-87451-5	2-87408-7	2-87507-7	2-87422-7	2-87545-7	2-87546-7	2-87547-7
56	2.784 70.71	2-87346-8	2-87361-8	2-87451-6	2-87408-8	2-87507-8	2-87422-8	2-87545-8	2-87546-8	2-87547-8
58	2.884 73.25	2-87346-9	2-87361-9	2-87451-7	2-87408-9	2-87507-9	2-87422-9	2-87545-9	2-87546-9	2-87547-9
60	2.984 75.79	3-87346-0	3-87361-0	2-87451-8	3-87408-0	3-87507-0	3-87422-0	3-87545-0	3-87546-0	3-87547-0
62	3.084 78.33	3-87346-1	3-87361-1	2-87451-9	3-87408-1	3-87507-1	3-87422-1	3-87545-1	3-87546-1	3-87547-1
64	3.184 80.87	3-87346-2	3-87361-2	3-87451-0	3-87408-2	3-87507-2	3-87422-2	3-87545-2	3-87546-2	3-87547-2
66	3.284 83.41	3-87346-3	3-87361-3	3-87451-1	3-87408-3	3-87507-3	3-87422-3	3-87545-3	3-87546-3	3-87547-3
68	3.384 85.95	3-87346-4	3-87361-4	3-87451-2	3-87408-4	3-87507-4	3-87422-4	3-87545-4	3-87546-4	3-87547-4
70	3.484 88.49	3-87346-5	3-87361-5	3-87451-3	3-87408-5	3-87507-5	3-87422-5	3-87545-5	3-87546-5	3-87547-5
72	3.584 91.03	3-87346-6	3-87361-6	3-87451-4	3-87408-6	3-87507-6	3-87422-6	3-87545-6	3-87546-6	3-87547-6
74	3.684 93.57	3-87346-7	3-87361-7	3-87451-5	3-87408-7	3-87507-7	3-87422-7	3-87545-7	3-87546-7	3-87547-7
76	3.784 96.11	3-87346-8	3-87361-8	3-87451-6	3-87408-8	3-87507-8	3-87422-8	3-87545-8	3-87546-8	3-87547-8
78	3.884 98.65	3-87346-9	3-87361-9	3-87451-7	3-87408-9	3-87507-9	3-87422-9	3-87545-9	3-87546-9	3-87547-9
80	3.984 101.19	4-87346-0	4-87361-0	3-87451-8	4-87408-0	4-87507-0	4-87422-0	4-87545-0	4-87546-0	4-87547-0

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

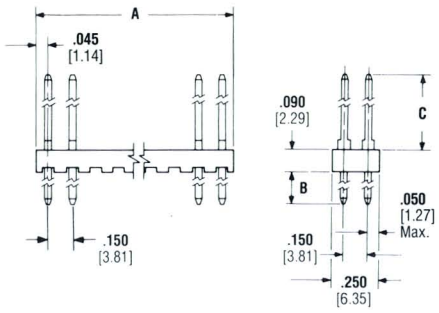
*Post No. 6 is omitted for keying purposes.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

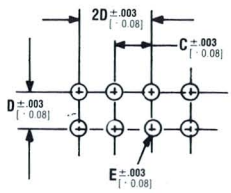
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Double Row, Straight Post Headers .150 [3.81] Centers

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



Recommended Pc Board Hole Layout



D—Post centerline to be .150 [3.81]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	A Dim.	B=.125 [3.18] C=.318 [8.08] E=.035 [0.89]			B=.125 [3.18] C=.700 [17.78] E=.040 [1.02]	B=.608 [15.44] C=.318 [8.08] E=.040 [1.02]		
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[2] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
2	.090 2.29	87216-3	87228-1	87544-1	87306-2	87548-1	87549-1	87550-1
4	.240 6.1	87216-4	87228-2	87544-2	87306-3	87548-2	87549-2	87550-2
6	.390 9.91	87216-5	87228-3	87544-3	87306-4	87548-3	87549-3	87550-3
8	.540 13.72	87216-1	87228-4	87544-4	87306-5	87548-4	87549-4	87550-4
10	.690 17.53	87216-2	87228-5	87544-5	87306-6	87548-5	87549-5	87550-5
12	.840 21.34	87216-6	87228-6	87544-6	87306-7	87548-6	87549-6	87550-6
14	.990 25.15	87216-7	87228-7	87544-7	87306-8	87548-7	87549-7	87550-7
16	1.140 28.96	87216-8	87228-8	87544-8	87306-9	87548-8	87549-8	87550-8
18	1.290 32.77	87216-9	87228-9	87544-9	1-87306-0	87548-9	87549-9	87550-9
20	1.440 36.58	1-87216-0	1-87228-0	1-87544-0	1-87306-1	1-87548-0	1-87549-0	1-87550-0
22	1.590 40.39	1-87216-1	1-87228-1	1-87544-1	1-87306-2	1-87548-1	1-87549-1	1-87550-1
24	1.740 44.2	1-87216-2	1-87228-2	1-87544-2	1-87306-3	1-87548-2	1-87549-2	1-87550-2
26	1.890 48.01	1-87216-3	1-87228-3	1-87544-3	1-87306-4	1-87548-3	1-87549-3	1-87550-3
28	2.040 51.82	1-87216-4	1-87228-4	1-87544-4	1-87306-5	1-87548-4	1-87549-4	1-87550-4
30	2.190 55.63	1-87216-5	1-87228-5	1-87544-5	1-87306-6	1-87548-5	1-87549-5	1-87550-5
32	2.340 59.44	1-87216-6	1-87228-6	1-87544-6	1-87306-7	1-87548-6	1-87549-6	1-87550-6
34	2.490 63.25	1-87216-7	1-87228-7	1-87544-7	1-87306-8	1-87548-7	1-87549-7	1-87550-7
36	2.640 67.06	1-87216-8	1-87228-8	1-87544-8	1-87306-9	1-87548-8	1-87549-8	1-87550-8
38	2.790 70.87	1-87216-9	1-87228-9	1-87544-9	2-87306-0	1-87548-9	1-87549-9	1-87550-9
40	2.940 74.68	2-87216-0	2-87228-0	2-87544-0	2-87306-1	2-87548-0	2-87549-0	2-87550-0
42	3.090 78.49	2-87216-1	2-87228-1	2-87544-1	2-87306-2	2-87548-1	2-87549-1	2-87550-1
44	3.240 82.3	2-87216-2	2-87228-2	2-87544-2	2-87306-3	2-87548-2	2-87549-2	2-87550-2
46	3.390 86.11	2-87216-3	2-87228-3	2-87544-3	2-87306-4	2-87548-3	2-87549-3	2-87550-3
48	3.540 89.92	2-87216-4	2-87228-4	2-87544-4	2-87306-5	2-87548-4	2-87549-4	2-87550-4
50	3.690 93.73	2-87216-5	2-87228-5	2-87544-5	2-87306-6	2-87548-5	2-87549-5	2-87550-5
52	3.840 97.54	2-87216-6	2-87228-6	2-87544-6	2-87306-7	2-87548-6	2-87549-6	2-87550-6
54	4.034 102.46	—	—	—	2-87306-8	—	—	—
56	4.184 106.27	—	—	—	2-87306-9	—	—	—
58	4.334 110.08	—	—	—	3-87306-0	—	—	—
60	4.484 113.89	—	—	—	3-87306-1	—	—	—
62	4.634 117.7	—	—	—	87306-1	—	—	—

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

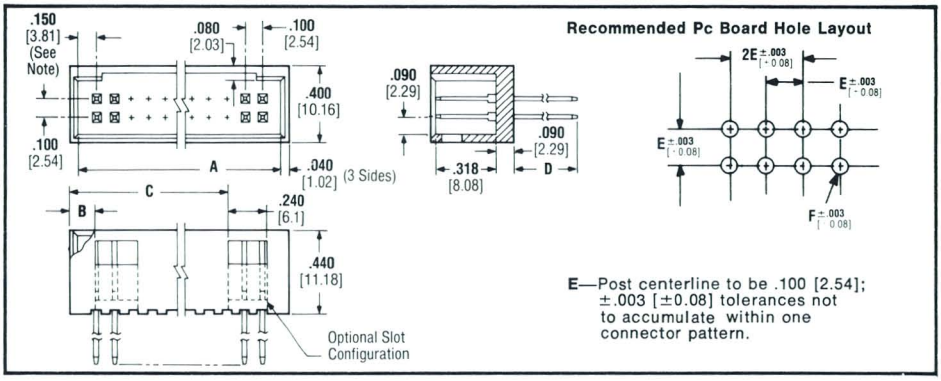
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Double Row, Straight Post Headers .100 [2.54] Centers (with Pin Protection and Detent Slots)

Mate with AMP Latch and FFC Connectors

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



No. of Pos.	Dimensions A	B	C	D=.125 [3.18] F=.035 [0.89] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	D=.608 [15.44] F=.040 [1.02] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
10	.700 17.78	.290 7.37	—	87478-2	87586-1	87587-1	87495-1	87590-1	87591-1
12	.800 20.32	.290 7.37	—	1-87478-0	87586-2	87587-2	87495-2	87590-2	87591-2
14	.900 22.86	.390 9.91	—	1-87478-1	87586-3	87587-3	87495-3	87590-3	87591-3
16	1.000 25.4	.390 9.91	—	1-87478-2	87586-4	87587-4	87495-4	87590-4	87591-4
18	1.100 27.94	.490 12.45	—	1-87478-3	87586-5	87587-5	87495-5	87590-5	87591-5
20	1.200 30.48	.190 4.83	.890 22.6	87478-3	87586-6	87587-6	87495-6	87590-6	87591-6
22	1.300 33.02	.190 4.83	.990 25.14	1-87478-4	87586-7	87587-7	87495-7	87590-7	87591-7
24	1.400 35.56	.190 4.83	1.090 27.69	1-87478-5	87586-8	87587-8	87495-8	87590-8	87591-8
26	1.500 38.1	.190 4.83	1.190 30.23	87478-4	87586-9	87587-9	87495-9	87590-9	87591-9
28	1.600 40.64	.190 4.83	1.290 32.77	1-87478-6	1-87586-0	1-87587-0	1-87495-0	1-87590-0	1-87591-0
30	1.700 43.18	.190 4.83	1.390 35.31	1-87478-7	1-87586-1	1-87587-1	1-87495-1	1-87590-1	1-87591-1
32	1.800 45.72	.190 4.83	1.490 37.85	1-87478-8	1-87586-2	1-87587-2	1-87495-2	1-87590-2	1-87591-2
34	1.900 48.26	.190 4.83	1.590 40.39	87478-5	1-87586-3	1-87587-3	1-87495-3	1-87590-3	1-87591-3
36	2.000 50.8	.190 4.83	1.690 42.93	1-87478-9	1-87586-4	1-87587-4	1-87495-4	1-87590-4	1-87591-4
38	2.100 53.34	.190 4.83	1.790 45.47	87478-6	1-87586-5	1-87587-5	1-87495-5	1-87590-5	1-87591-5
40	2.200 55.88	.190 4.83	1.890 48.01	87478-7	1-87586-6	1-87587-6	1-87495-6	1-87590-6	1-87591-6
42	2.300 58.42	.190 4.83	1.990 50.55	2-87478-0	1-87586-7	1-87587-7	1-87495-7	1-87590-7	1-87591-7
44	2.400 60.96	.190 4.83	2.090 53.09	2-87478-1	1-87586-8	1-87587-8	1-87495-8	1-87590-8	1-87591-8
46	2.500 63.5	.190 4.83	2.190 55.63	2-87478-2	1-87586-9	1-87587-9	1-87495-9	1-87590-9	1-87591-9
48	2.600 66.04	.190 4.83	2.290 58.17	2-87478-3	2-87586-0	2-87587-0	2-87495-0	2-87590-0	2-87591-0
50	2.700 68.58	.190 4.83	2.390 60.71	87478-8	2-87586-1	2-87587-1	2-87495-1	2-87590-1	2-87591-1
52	2.800 71.12	.190 4.83	2.490 63.25	2-87478-4	2-87586-2	2-87587-2	2-87495-2	2-87590-2	2-87591-2
54	2.900 73.66	.190 4.83	2.590 65.79	2-87478-5	2-87586-3	2-87587-3	2-87495-3	2-87590-3	2-87591-3
56	3.000 76.2	.190 4.83	2.690 68.33	2-87478-6	2-87586-4	2-87587-4	2-87495-4	2-87590-4	2-87591-4
58	3.100 78.74	.190 4.83	2.790 70.87	87478-9	2-87586-5	2-87587-5	2-87495-5	2-87590-5	2-87591-5
60	3.200 81.28	.190 4.83	2.890 73.41	87478-1	2-87586-6	2-87587-6	2-87495-6	2-87590-6	2-87591-6
62	3.300 83.82	.190 4.83	2.990 75.95	2-87478-7	2-87586-7	2-87587-7	2-87495-7	2-87590-7	2-87591-7
64	3.400 86.36	.190 4.83	3.090 78.49	2-87478-8	2-87586-8	2-87587-8	2-87495-8	2-87590-8	2-87591-8
66	3.500 88.9	.190 4.83	3.190 81.03	2-87478-9	2-87586-9	2-87587-9	2-87495-9	2-87590-9	2-87591-9
68	3.600 91.44	.190 4.83	3.290 83.57	3-87478-0	3-87586-0	3-87587-0	3-87495-0	3-87590-0	3-87591-0
70	3.700 93.98	.190 4.83	3.390 86.11	3-87478-1	3-87586-1	3-87587-1	3-87495-1	3-87590-1	3-87591-1
72	3.800 96.52	.190 4.83	3.490 88.65	3-87478-2	3-87586-2	3-87587-2	3-87495-2	3-87590-2	3-87591-2

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Note: These headers with .150 [3.81] dimension will mate with AMP Latch and AMP Flexible Flat Cable Connectors.

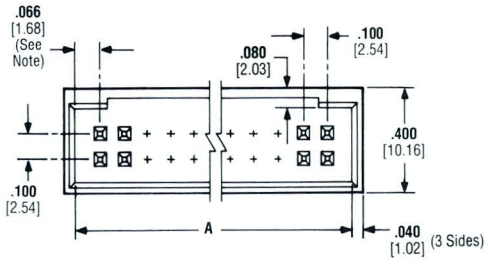
Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

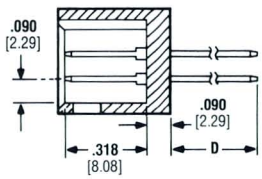
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

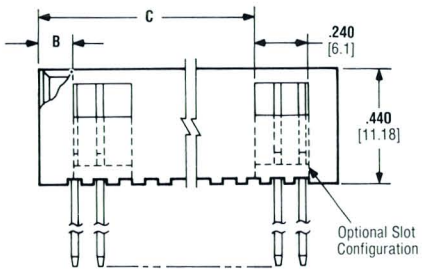
Double Row, Straight Post Headers .100 [2.54] Centers (with Pin Protection and Detent Slots)

Mate with Mod. IV and AMP Locking Clip Connectors

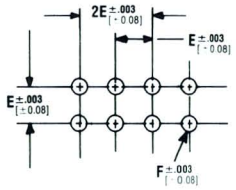
Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze







Recommended Pc Board Hole Layout



E—Post centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern

No. of Pos.	Dimensions A	B	C	D=.125 [3.18] F=.035 [0.89] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	D=.608 [15.44] F=.040 [1.02] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
10	.532 13.51	.206 5.23	—	87515-1	87588-1	87589-1	87592-1	87593-1	87594-1
12	.632 16.05	.206 5.23	—	87515-2	87588-2	87589-2	87592-2	87593-2	87594-2
14	.732 18.59	.306 7.77	—	87515-3	87588-3	87589-3	87592-3	87593-3	87594-3
16	.832 21.13	.306 7.77	—	87515-4	87588-4	87589-4	87592-4	87593-4	87594-4
18	.932 23.67	.406 10.31	—	87515-5	87588-5	87589-5	87592-5	87593-5	87594-5
20	1.032 26.21	.106 2.69	.806 20.47	87515-6	87588-6	87589-6	87592-6	87593-6	87594-6
22	1.132 28.75	.106 2.69	.906 23.01	87515-7	87588-7	87589-7	87592-7	87593-7	87594-7
24	1.232 31.29	.106 2.69	1.006 25.55	87515-8	87588-8	87589-8	87592-8	87593-8	87594-8
26	1.332 33.83	.106 2.69	1.106 28.09	87515-9	87588-9	87589-9	87592-9	87593-9	87594-9
28	1.432 36.37	.106 2.69	1.206 30.63	1-87515-0	1-87588-0	1-87589-0	1-87592-0	1-87593-0	1-87594-0
30	1.532 38.91	.106 2.69	1.306 33.17	1-87515-1	1-87588-1	1-87589-1	1-87592-1	1-87593-1	1-87594-1
32	1.632 41.45	.106 2.69	1.406 35.71	1-87515-2	1-87588-2	1-87589-2	1-87592-2	1-87593-2	1-87594-2
34	1.732 43.99	.106 2.69	1.506 38.25	1-87515-3	1-87588-3	1-87589-3	1-87592-3	1-87593-3	1-87594-3

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Note: These headers with .066 [1.68] dimension will mate with Mod. IV and AMP Locking Clip Connectors.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:

1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

No. of Pos.	Dimensions			D=.125 [3.18] F=.035 [0.89]			D=.608 [15.44] F=.040 [1.02]		
	A	B	C	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
36	**1.832** 46.53	**.106** 2.69	**1.606** 40.79	1-87515-4	1-87588-4	1-87589-4	1-87592-4	1-87593-4	1-87594-4
38	**1.932** 49.07	**.106** 2.69	1.706 **43.33**	1-87515-5	1-87588-5	1-87589-5	1-87592-5	1-87593-5	1-87594-5
40	**2.032** 51.61	**.106** 2.69	**1.806** 45.87	1-87515-6	1-87588-6	1-87589-6	1-87592-6	1-87593-6	1-87594-6
42	**2.132** 54.15	**.106** 2.69	**1.906** 48.41	1-87515-7	1-87588-7	1-87589-7	1-87592-7	1-87593-7	1-87594-7
44	**2.232** 56.69	**.106** 2.69	**2.006** 50.95	1-87515-8	1-87588-8	1-87589-8	1-87592-8	1-87593-8	1-87594-8
46	**2.332** 59.23	**.106** 2.69	**2.106** 53.49	1-87515-9	1-87588-9	1-87589-9	1-87592-9	1-87593-9	1-87594-9
48	**2.432** 61.77	**.106** 2.69	**2.206** 56.03	2-87515-0	2-87588-0	2-87589-0	2-87592-0	2-87593-0	2-87594-0
50	**2.532** 64.31	**.106** 2.69	**2.306** 58.57	2-87515-1	2-87588-1	2-87589-1	2-87592-1	2-87593-1	2-87594-1
52	**2.632** 66.85	**.106** 2.69	**2.406** 61.11	2-87515-2	2-87588-2	2-87589-2	2-87592-2	2-87593-2	2-87594-2
54	**2.732** 69.39	**.106** 2.69	**2.506** 63.65	2-87515-3	2-87588-3	2-87589-3	2-87592-3	2-87593-3	2-87594-3
56	**2.832** 71.93	**.106** 2.69	**2.606** 66.19	2-87515-4	2-87588-4	2-87589-4	2-87592-4	2-87593-4	2-87594-4
58	**2.932** 74.47	**.106** 2.69	**2.706** 68.73	2-87515-5	2-87588-5	2-87589-5	2-87592-5	2-87593-5	2-87594-5
60	**3.032** 77.01	**.106** 2.69	**2.806** 71.27	2-87515-6	2-87588-6	2-87589-6	2-87592-6	2-87593-6	2-87594-6
62	**3.132** 79.55	**.106** 2.69	**2.906** 73.81	2-87515-7	2-87588-7	2-87589-7	2-87592-7	2-87593-7	2-87594-7
64	**3.232** 82.09	**.106** 2.69	**3.006** 76.35	2-87515-8	2-87588-8	2-87589-8	2-87592-8	2-87593-8	2-87594-8
66	**3.332** 84.63	**.106** 2.69	**3.106** 78.89	2-87515-9	2-87588-9	2-87589-9	2-87592-9	2-87593-9	2-87594-9
68	**3.432** 87.17	**.106** 2.69	**3.206** 81.43	3-87515-0	3-87588-0	3-87589-0	3-87592-0	3-87593-0	3-87594-0
70	**3.532** 89.71	**.106** 2.69	**3.306** 83.97	3-87515-1	3-87588-1	3-87589-1	3-87592-1	3-87593-1	3-87594-1
72	**3.632** 92.25	**.106** 2.69	**3.406** 86.51	3-87515-2	3-87588-2	3-87589-2	3-87592-2	3-87593-2	3-87594-2
74	**3.732** 94.79	**.106** 2.69	**3.506** 89.05	3-87515-3	3-87588-3	3-87589-3	3-87592-3	3-87593-3	3-87594-3

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Note: These headers with .066 [1.68] dimension will mate with Mod. IV and AMP Locking Clip Connectors.

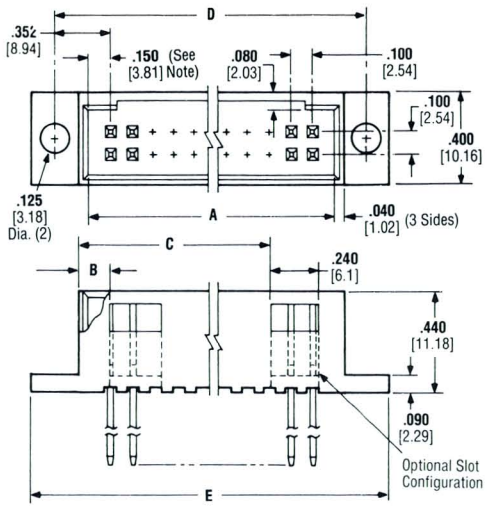
Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

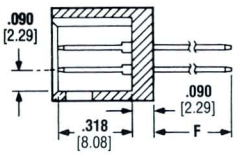
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Double Row, Straight Post Headers .100 [2.54] Centers (with Pin Protection, Detent Slots and Mounting Ears)

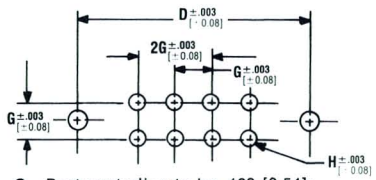
Mate with AMP Latch and FFC Connectors

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze





Recommended Pc Board Hole Layout



G—Post centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	Dimensions A	B	C	D	E	F=.125 [3.18] H=.035 [0.89] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	F=.608 [15.44] H=.040 [1.02] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
10	.700 17.78	.290 7.37	—	1.104 28.04	1.304 33.12	87474-1	87595-1	87596-1	87599-1	87600-1	87601-1
12	.800 20.32	.290 7.37	—	1.204 30.58	1.404 35.66	87474-8	87595-2	87596-2	87599-2	87600-2	87601-2
14	.900 22.86	.390 9.91	—	1.304 33.12	1.504 38.2	87474-9	87595-3	87596-3	87599-3	87600-3	87601-3
16	1.000 25.4	.390 9.91	—	1.404 35.66	1.604 40.74	1-87474-0	87595-4	87596-4	87599-4	87600-4	87601-4
18	1.100 27.94	.490 12.45	—	1.504 38.2	1.704 43.28	1-87474-1	87595-5	87596-5	87599-5	87600-5	87601-5
20	1.200 30.48	.190 4.83	.890 22.61	1.604 40.74	1.804 45.82	87474-2	87595-6	87596-6	87599-6	87600-6	87601-6
22	1.300 33.02	.190 4.83	.990 25.15	1.704 43.28	1.904 48.36	1-87474-2	87595-7	87596-7	87599-7	87600-7	87601-7
24	1.400 35.56	.190 4.83	1.090 27.69	1.804 45.82	2.004 50.9	1-87474-3	87595-8	87596-8	87599-8	87600-8	87601-8
26	1.500 38.1	.190 4.83	1.190 30.23	1.904 48.36	2.104 53.44	87474-3	87595-9	87596-9	87599-9	87600-9	87601-9
28	1.600 40.64	.190 4.83	1.290 32.77	2.004 50.9	2.204 55.98	1-87474-4	1-87595-0	1-87596-0	1-87599-0	1-87600-0	1-87601-0
30	1.700 43.18	.190 4.83	1.390 35.31	2.104 53.44	2.304 58.52	1-87474-5	1-87595-1	1-87596-1	1-87599-1	1-87600-1	1-87601-1
32	1.800 45.72	.190 4.83	1.490 37.85	2.204 55.98	2.404 61.06	1-87474-6	1-87595-2	1-87596-2	1-87599-2	1-87600-2	1-87601-2
34	1.900 48.26	.190 4.83	1.590 40.39	2.304 58.52	2.504 63.6	87474-4	1-87595-3	1-87596-3	1-87599-3	1-87600-3	1-87601-3
36	2.000 50.8	.190 4.83	1.690 42.93	2.404 61.06	2.604 66.14	1-87474-7	1-87595-4	1-87596-4	1-87599-4	1-87600-4	1-87601-4
38	2.100 53.34	.190 4.83	1.790 45.47	2.504 63.6	2.704 68.68	87474-5	1-87595-5	1-87596-5	1-87599-5	1-87600-5	1-87601-5
40	2.200 55.88	.190 4.83	1.890 48.07	2.604 66.14	2.804 71.22	87474-6	1-87595-6	1-87596-6	1-87599-6	1-87600-6	1-87601-6
42	2.300 58.42	.190 4.83	1.990 50.55	2.704 68.68	2.904 73.76	1-87474-8	1-87595-7	1-87596-7	1-87599-7	1-87600-7	1-87601-7
44	2.400 60.96	.190 4.83	2.090 53.09	2.804 71.22	3.004 76.3	1-87474-9	1-87595-8	1-87596-8	1-87599-8	1-87600-8	1-87601-8
46	2.500 63.5	.190 4.83	2.190 55.63	2.904 73.76	3.104 78.84	2-87474-0	1-87595-9	1-87596-9	1-87599-9	1-87600-9	1-87601-9
48	2.600 66.04	.190 4.83	2.290 58.17	3.004 76.3	3.204 81.38	2-87474-1	2-87595-0	2-87596-0	2-87599-0	2-87600-0	2-87601-0
50	2.700 68.58	.190 4.83	2.390 60.71	3.104 78.84	3.304 83.92	87474-7	2-87595-1	2-87596-1	2-87599-1	2-87600-1	2-87601-1
52	2.800 71.12	.190 4.83	2.490 63.25	3.204 81.38	3.404 86.46	2-87474-2	2-87595-2	2-87596-2	2-87599-2	2-87600-2	2-87601-2
54	2.900 73.66	.190 4.83	2.590 65.79	3.304 83.92	3.504 89	2-87474-3	2-87595-3	2-87596-3	2-87599-3	2-87600-3	2-87601-3
56	3.000 76.2	.190 4.83	2.690 68.33	3.404 86.46	3.604 91.54	2-87474-4	2-87595-4	2-87596-4	2-87599-4	2-87600-4	2-87601-4
58	3.100 78.74	.190 4.83	2.790 70.87	3.504 89	3.704 94.08	2-87474-5	2-87595-5	2-87596-5	2-87599-5	2-87600-5	2-87601-5
60	3.200 81.28	.190 4.83	2.890 73.41	3.604 91.54	3.804 96.62	2-87474-6	2-87595-6	2-87596-6	2-87599-6	2-87600-6	2-87601-6

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Note: These headers with .150 [3.81] dimension will mate with AMP Latch and AMP Flexible Flat Cable Connectors.

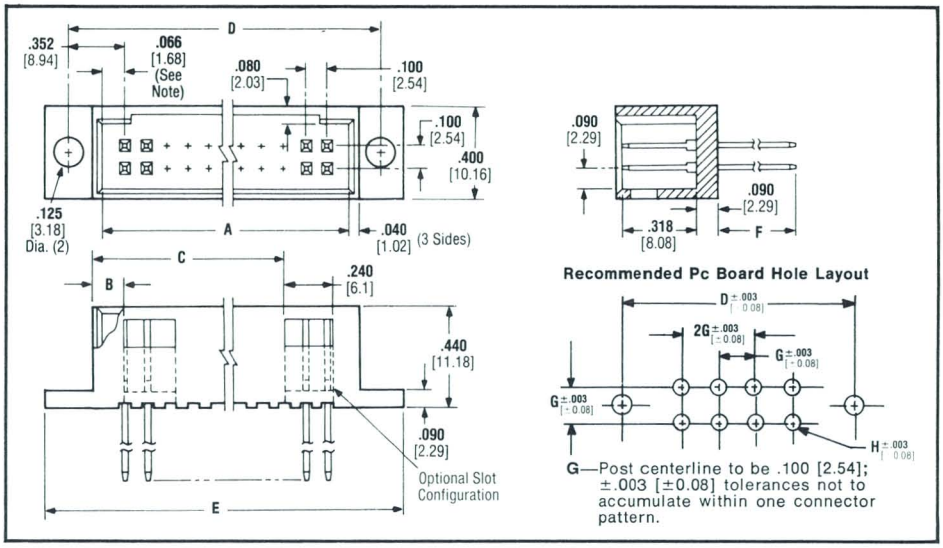
Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Double Row, Straight Post Headers .100 [2.54] Centers (with Pin Protection, Detent Slots and Mounting Ears)

Mate with Mod. IV and AMP Locking Clip Connectors

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



No. of Pos.	Dimensions A	B	C	D	E	F=.125 [3.18] H=.035 [0.89] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	F=.608 [15.44] H=.040 [1.02] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
10	.532 13.51	.206 5.23	—	1.104 28.04	1.304 33.12	87525-1	87597-1	87598-1	87602-1	87603-1	87604-1
12	.632 16.05	.206 5.23	—	1.204 30.58	1.404 35.66	87525-2	87597-2	87598-2	87602-2	87603-2	87604-2
14	.732 18.59	.306 7.77	—	1.304 33.12	1.504 38.2	87525-3	87597-3	87598-3	87602-3	87603-3	87604-3
16	.832 21.13	.306 7.77	—	1.404 35.66	1.604 40.74	87525-4	87597-4	87598-4	87602-4	87603-4	87604-4
18	.932 23.67	.406 10.31	—	1.504 38.2	1.704 43.28	87525-5	87597-5	87598-5	87602-5	87603-5	87604-5
20	1.032 26.21	.106 2.69	.806 20.47	1.604 40.74	1.804 45.82	87525-6	87597-6	87598-6	87602-6	87603-6	87604-6
22	1.132 28.75	.106 2.69	.906 23.01	1.704 43.28	1.904 48.36	87525-7	87597-7	87598-7	87602-7	87603-7	87604-7
24	1.232 31.29	.106 2.69	1.006 25.55	1.804 45.82	2.004 50.9	87525-8	87597-8	87598-8	87602-8	87603-8	87604-8
26	1.332 33.83	.106 2.69	1.106 28.09	1.904 48.36	2.104 53.44	87525-9	87597-9	87598-9	87602-9	87603-9	87604-9
28	1.432 36.37	.106 2.69	1.206 30.63	2.004 50.9	2.204 55.98	1-87525-0	1-87597-0	1-87598-0	1-87602-0	1-87603-0	1-87604-0
30	1.532 38.91	.106 2.69	1.306 33.17	2.104 53.44	2.304 58.52	1-87525-1	1-87597-1	1-87598-1	1-87602-1	1-87603-1	1-87604-1
32	1.632 41.45	.106 2.69	1.406 35.71	2.204 55.98	2.404 61.06	1-87525-2	1-87597-2	1-87598-2	1-87602-2	1-87603-2	1-87604-2
34	1.732 43.99	.106 2.69	1.506 38.25	2.304 58.52	2.504 63.6	1-87525-3	1-87597-3	1-87598-3	1-87602-3	1-87603-3	1-87604-3
36	1.832 46.53	.106 2.69	1.606 40.79	2.404 61.06	2.604 66.14	1-87525-4	1-87597-4	1-87598-4	1-87602-4	1-87603-4	1-87604-4
38	1.932 49.07	.106 2.69	1.706 43.33	2.504 63.6	2.704 68.68	1-87525-5	1-87597-5	1-87598-5	1-87602-5	1-87603-5	1-87604-5
40	2.032 51.61	.106 2.69	1.806 45.87	2.604 66.14	2.804 71.22	1-87525-6	1-87597-6	1-87598-6	1-87602-6	1-87603-6	1-87604-6
42	2.132 54.15	.106 2.69	1.906 48.41	2.704 68.68	2.904 73.76	1-87525-7	1-87597-7	1-87598-7	1-87602-7	1-87603-7	1-87604-7
44	2.232 56.69	.106 2.69	2.006 50.95	2.804 71.22	3.004 76.3	1-87525-8	1-87597-8	1-87598-8	1-87602-8	1-87603-8	1-87604-8
46	2.332 59.23	.106 2.69	2.106 53.49	2.904 73.76	3.104 78.84	1-87525-9	1-87597-9	1-87598-9	1-87602-9	1-87603-9	1-87604-9
48	2.432 61.77	.106 2.69	2.206 56.03	3.004 76.3	3.204 81.38	2-87525-0	2-87597-0	2-87598-0	2-87602-0	2-87603-0	2-87604-0
50	2.532 64.31	.106 2.69	2.306 58.57	3.104 78.84	3.304 83.92	2-87525-1	2-87597-1	2-87598-1	2-87602-1	2-87603-1	2-87604-1
52	2.632 66.85	.106 2.69	2.406 61.11	3.204 81.38	3.404 86.46	2-87525-2	2-87597-2	2-87598-2	2-87602-2	2-87603-2	2-87604-2
54	2.732 69.39	.106 2.69	2.506 63.65	3.304 83.92	3.504 89	2-87525-3	2-87597-3	2-87598-3	2-87602-3	2-87603-3	2-87604-3
56	2.832 71.93	.106 2.69	2.606 66.19	3.404 86.46	3.604 91.54	2-87525-4	2-87597-4	2-87598-4	2-87602-4	2-87603-4	2-87604-4
58	2.932 74.47	.106 2.69	2.706 68.73	3.504 89	3.704 94.08	2-87525-5	2-87597-5	2-87598-5	2-87602-5	2-87603-5	2-87604-5
60	3.032 77.01	.106 2.69	2.806 71.27	3.604 91.54	3.804 96.62	2-87525-6	2-87597-6	2-87598-6	2-87602-6	2-87603-6	2-87604-6

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Note: These headers with .066 [1.68] dimension will mate with Mod. IV and AMP Locking Clip Connectors.

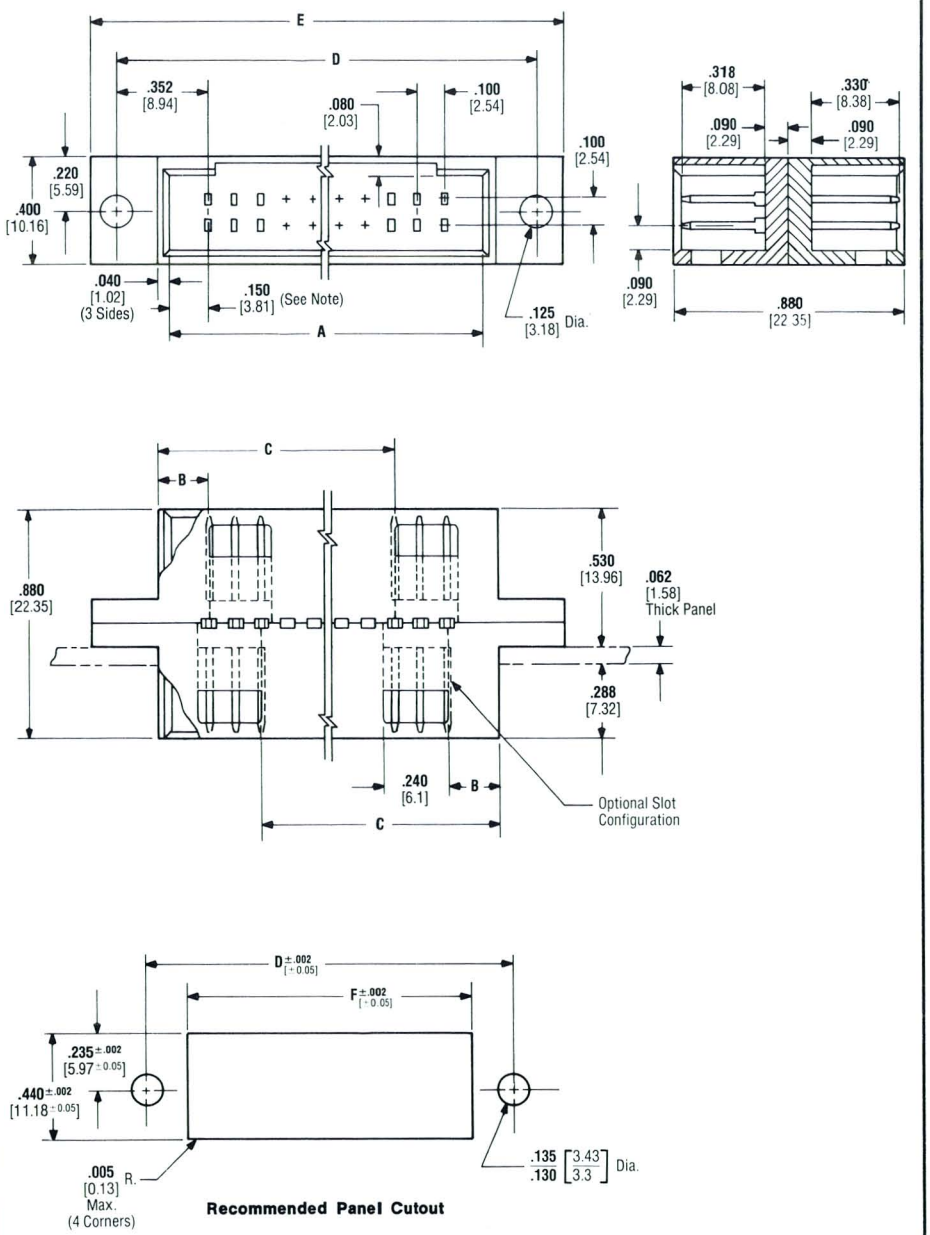
Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

Double Row, Straight Post Bulkhead Type Headers .100 [2.54] Centers (with Pin Protection, Detent Slots and Mounting Ears)

Mate with AMP Latch and/or FFC Connectors (both sides)

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



Recommended Panel Cutout

Note: These headers with .150 [3.81] dimension will mate with AMP Latch and/or Flexible Flat Cable Connectors on both sides.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:

1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

No. of Pos.	Dimensions						Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
	A	B	C	D	E	F			
10	.700 17.78	.290 7.37	—	1.104 28.04	1.304 33.12	.800 20.32	87605-1	87606-1	87607-1
12	.800 20.32	.290 7.37	—	1.204 30.58	1.404 35.66	.900 22.86	87605-2	87606-2	87607-2
14	.900 22.86	.390 9.91	—	1.304 33.12	1.504 38.2	1.000 25.4	87605-3	87606-3	87607-3
16	1.000 25.4	.390 9.91	—	1.404 35.66	1.604 40.74	1.100 27.94	87605-4	87606-4	87607-4
18	1.100 27.94	.490 12.45	—	1.504 38.2	1.704 43.28	1.200 30.48	87605-5	87606-5	87607-5
20	1.200 30.48	.190 4.83	.890 22.61	1.604 40.74	1.804 45.82	1.300 33.02	87605-6	87606-6	87607-6
22	1.300 33.02	.190 4.83	.990 25.15	1.704 43.28	1.904 48.36	1.400 35.56	87605-7	87606-7	87607-7
24	1.400 35.56	.190 4.83	1.090 27.69	1.804 45.82	2.034 50.9	1.500 38.1	87605-8	87606-8	87607-8
26	1.500 38.1	.190 4.83	1.190 30.23	1.904 48.36	2.104 53.44	1.600 40.64	87605-9	87606-9	87607-9
28	1.600 40.64	.190 4.83	1.290 32.77	2.004 50.9	2.204 55.98	1.700 43.18	1-87605-0	1-87606-0	1-87607-0
30	1.700 43.18	.190 4.83	1.390 35.31	2.104 53.44	2.304 58.52	1.800 45.72	1-87605-1	1-87606-1	1-87607-1
32	1.800 45.72	.190 4.83	1.490 37.85	2.204 55.98	2.404 61.06	1.900 48.26	1-87605-2	1-87606-2	1-87607-2
34	1.900 48.26	.190 4.83	1.590 40.39	2.304 58.52	2.504 63.6	2.000 50.8	1-87605-3	1-87606-3	1-87607-3
36	2.000 50.8	.190 4.83	1.690 42.93	2.404 61.06	2.604 66.14	2.100 53.34	1-87605-4	1-87606-4	1-87607-4
38	2.100 53.34	.190 4.83	1.790 45.47	2.504 63.6	2.704 68.68	2.200 55.88	1-87605-5	1-87606-5	1-87607-5
40	2.200 55.88	.190 4.83	1.890 48.01	2.604 66.14	2.804 71.22	2.300 58.42	1-87605-6	1-87606-6	1-87607-6
42	2.300 58.42	.190 4.83	1.990 50.55	2.704 68.68	2.904 73.76	2.400 60.96	1-87605-7	1-87606-7	1-87607-7
44	2.400 60.96	.190 4.83	2.090 53.09	2.804 71.22	3.004 76.3	2.500 63.5	1-87605-8	1-87606-8	1-87607-8
46	2.500 63.5	.190 4.83	2.190 55.63	2.904 73.76	3.104 78.84	2.600 66.04	1-87605-9	1-87606-9	1-87607-9
48	2.600 66.04	.190 4.83	2.290 58.17	3.004 76.3	3.204 81.38	2.700 68.58	2-87605-0	2-87606-0	2-87607-0
50	2.700 68.58	.190 4.83	2.390 60.71	3.104 78.84	3.304 83.92	2.800 71.12	2-87605-1	2-87606-1	2-87607-1
52	2.800 71.12	.190 4.83	2.490 63.25	3.204 81.38	3.404 86.46	2.900 73.66	2-87605-2	2-87606-2	2-87607-2
54	2.900 73.66	.190 4.83	2.590 65.79	3.304 83.92	3.504 89	3.000 76.2	2-87605-3	2-87606-3	2-87607-3
56	3.000 76.2	.190 4.83	2.690 68.33	3.404 86.46	3.604 91.54	3.100 78.74	2-87605-4	2-87606-4	2-87607-4
58	3.100 78.74	.190 4.83	2.790 70.87	3.504 89	3.704 94.08	3.200 81.28	2-87605-5	2-87606-5	2-87607-5
60	3.200 81.28	.190 4.83	2.890 73.41	3.604 91.54	3.804 96.62	3.300 83.82	2-87605-6	2-87606-6	2-87607-6

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

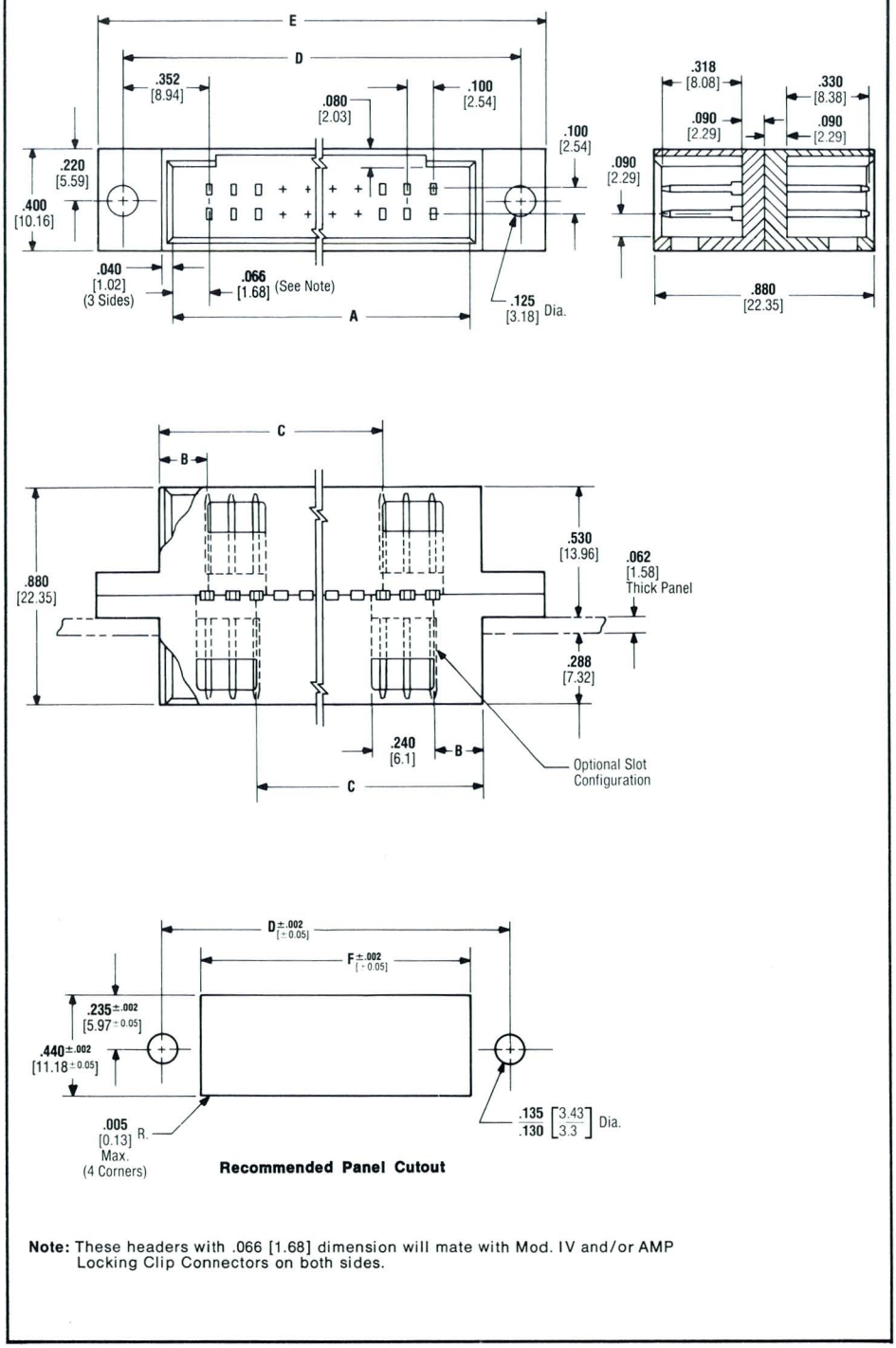
Note: These headers with .150 [3.81] dimension will mate with AMP Latch and/or Flexible Flat Cable Connectors on both sides.

Mod. II—.025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

Double Row, Straight Post Bulkhead Type Headers .100 [2.54] Centers (with Pin Protection, Detent Slots and Mounting Ears)

Mate with Mod. IV and/or AMP Locking Clip Connectors (both sides)
Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



Recommended Panel Cutout

Note: These headers with .066 [1.68] dimension will mate with Mod. IV and/or AMP Locking Clip Connectors on both sides.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:

1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

No. of Pos.	Dimensions						Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
	A	B	C	D	E	F			
10	.532 13.51	.206 5.23	—	1.104 28.04	1.304 33.12	.632 16.05	87608-1	87609-1	87610-1
12	.632 16.05	.206 5.23	—	1.204 30.58	1.404 35.66	.732 18.59	87608-2	87609-2	87610-2
14	.732 18.59	.306 7.77	—	1.304 33.12	1.504 38.2	.832 21.13	87608-3	87609-3	87610-3
16	.832 21.13	.306 7.77	—	1.404 35.66	1.604 40.74	.932 23.67	87608-4	87609-4	87610-4
18	.932 23.67	.406 10.31	—	1.504 38.2	1.704 43.28	1.032 26.21	87608-5	87609-5	87610-5
20	1.032 26.21	.106 2.69	.806 20.47	1.604 40.74	1.804 45.82	1.132 28.75	87608-6	87609-6	87610-6
22	1.132 28.75	.106 2.69	.906 23.01	1.704 43.28	1.904 48.36	1.232 31.29	87608-7	87609-7	87610-7
24	1.232 31.29	.106 2.69	1.006 25.55	1.804 45.82	2.004 50.9	1.332 33.83	87608-8	87609-8	87610-8
26	1.332 33.83	.106 2.69	1.106 28.09	1.904 48.36	2.104 53.44	1.432 36.37	87608-9	87609-9	87610-9
28	1.432 36.37	.106 2.69	1.206 30.63	2.004 50.9	2.204 55.98	1.532 38.91	1-87608-0	1-87609-0	1-87610-0
30	1.532 38.91	.106 2.69	1.306 33.17	2.104 53.44	2.304 58.52	1.632 41.45	1-87608-1	1-87609-1	1-87610-1
32	1.632 41.45	.106 2.69	1.406 35.71	2.204 55.98	2.404 61.06	1.732 43.99	1-87608-2	1-87609-2	1-87610-2
34	1.732 43.99	.106 2.69	1.506 38.25	2.304 58.52	2.504 63.6	1.832 46.53	1-87608-3	1-87609-3	1-87610-3
36	1.832 46.53	.106 2.69	1.606 40.79	2.404 61.06	2.604 66.14	1.932 49.07	1-87608-4	1-87609-4	1-87610-4
38	1.932 49.07	.106 2.69	1.706 43.33	2.504 63.6	2.704 68.68	2.032 51.61	1-87608-5	1-87609-5	1-87610-5
40	2.032 51.61	.106 2.69	1.806 45.87	2.604 66.14	2.804 71.22	2.132 54.15	1-87608-6	1-87609-6	1-87610-6
42	2.132 54.15	.106 2.69	1.906 48.41	2.704 68.68	2.904 73.76	2.232 56.69	1-87608-7	1-87609-7	1-87610-7
44	2.232 56.69	.106 2.69	2.006 50.95	2.804 71.22	3.004 76.3	2.332 59.23	1-87608-8	1-87609-8	1-87610-8
46	2.332 59.23	.106 2.69	2.106 53.49	2.904 73.76	3.104 78.84	2.432 61.77	1-87608-9	1-87609-9	1-87610-9
48	2.432 61.77	.106 2.69	2.206 56.03	3.004 76.3	3.204 81.38	2.532 64.31	2-87608-0	2-87609-0	2-87610-0
50	2.532 64.31	.106 2.69	2.306 58.57	3.104 78.84	3.304 83.92	2.632 66.85	2-87608-1	2-87609-1	2-87610-1
52	2.632 66.85	.106 2.69	2.406 61.11	3.204 81.38	3.404 86.46	2.732 69.39	2-87608-2	2-87609-2	2-87610-2
54	2.732 69.39	.106 2.69	2.506 63.65	3.304 83.92	3.504 89	2.832 71.93	2-87608-3	2-87609-3	2-87610-3
56	2.832 71.93	.106 2.69	2.606 66.19	3.404 86.46	3.604 91.54	2.932 74.47	2-87608-4	2-87609-4	2-87610-4
58	2.932 74.47	.106 2.69	2.706 68.73	3.504 89	3.704 94.08	3.032 77.01	2-87608-5	2-87609-5	2-87610-5
60	3.032 77.01	.106 2.69	2.806 71.27	3.604 91.54	3.804 96.62	3.132 79.55	2-87608-6	2-87609-6	2-87610-6

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Note: These headers with .066 [1.68] dimension will mate with Mod. IV and/or AMP Locking Clip Connectors on both sides.

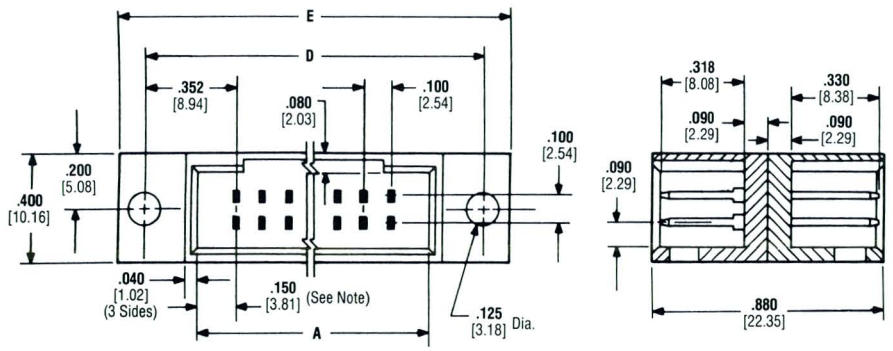
Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

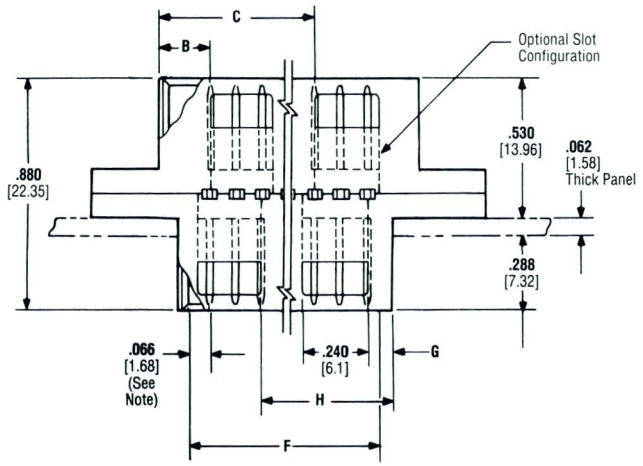
Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

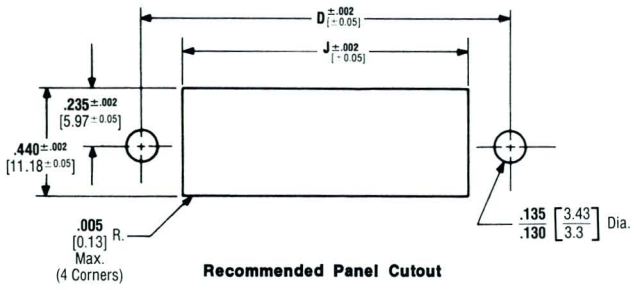
Double Row, Straight Post Bulkhead Type Headers .100 [2.54] Centers (with Pin Protection, Detent Slots and Mounting Ears)

Mate with AMP Latch or FFC Connector (one side) and Mod. IV or AMP Locking Clip Connector (one side)

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze







Recommended Panel Cutout

Note: These headers will mate with AMP Latch or Flexible Flat Cable Connector on side with .150 [3.81] dimension and Mod. IV or AMP Locking Clip Connector on side with .066 [1.68] dimension.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:

1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

No. of Pos.	Dimensions									Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
	A	B	C	D	E	F	G	H	J			
10	.700 17.78	.290 7.37	—	1.104 28.04	1.304 33.12	.532 13.51	.206 5.23	—	.632 16.05	87496-2	87611-1	87612-1
12	.800 20.32	.290 7.37	—	1.204 30.58	1.404 35.66	.632 16.05	.206 5.23	—	.732 18.59	87496-3	87611-2	87612-2
14	.900 22.86	.390 9.91	—	1.304 33.12	1.504 38.2	.732 18.59	.306 7.77	—	.832 21.13	87496-4	87611-3	87612-3
16	1.000 25.4	.390 9.41	—	1.404 35.66	1.604 40.74	.832 21.13	.306 7.77	—	.932 23.67	87496-5	87611-4	87612-4
18	1.100 27.94	.490 12.45	—	1.504 38.2	1.704 43.28	.932 23.67	.406 10.31	—	1.032 26.21	87496-6	87611-5	87612-5
20	1.200 30.48	.190 4.83	.890 22.61	1.604 40.74	1.804 45.82	1.032 26.21	.106 2.69	.806 20.47	1.132 28.75	87496-7	87611-6	87612-6
22	1.300 33.02	.190 4.83	.990 25.15	1.704 43.28	1.904 48.36	1.132 28.75	.106 2.69	.906 23.01	1.232 31.29	87496-8	87611-7	87612-7
24	1.400 35.56	.190 4.83	1.090 27.69	1.804 45.82	2.004 50.9	1.232 31.29	.106 2.69	1.006 25.55	1.332 33.83	87496-9	87611-8	87612-8
26	1.500 38.1	.190 4.83	1.190 30.23	1.904 48.36	2.104 53.44	1.332 33.83	.106 2.69	1.106 28.09	1.432 36.37	1-87496-0	87611-9	87612-9
28	1.600 40.64	.190 4.83	1.290 32.77	2.004 50.9	2.204 55.98	1.432 36.37	.106 2.69	1.206 30.63	1.532 38.91	1-87496-1	1-87611-0	1-87612-0
30	1.700 43.18	.190 4.83	1.390 35.31	2.104 53.44	2.304 58.52	1.532 38.91	.106 2.69	1.306 33.17	1.632 41.45	1-87496-2	1-87611-1	1-87612-1
32	1.800 45.72	.190 4.83	1.490 37.85	2.204 55.98	2.404 61.06	1.632 41.45	.106 2.69	1.406 35.71	1.732 43.99	1-87496-3	1-87611-2	1-87612-2
34	1.900 48.26	.190 4.83	1.590 40.39	2.304 58.52	2.504 63.6	1.732 43.99	.106 2.69	1.506 38.25	1.832 46.53	1-87496-4	1-87611-3	1-87612-3
36	2.000 50.8	.190 4.83	1.690 42.93	2.404 61.06	2.604 66.14	1.832 46.53	.106 2.69	1.606 40.79	1.932 49.07	1-87496-5	1-87611-4	1-87612-4
38	2.100 53.34	.190 4.83	1.790 45.47	2.504 63.6	2.704 68.68	1.932 49.07	.106 2.69	1.706 43.33	2.032 51.61	1-87496-6	1-87611-5	1-87612-5
40	2.200 55.88	.190 4.83	1.890 48.01	2.604 66.14	2.804 71.22	2.032 51.61	.106 2.69	1.806 45.87	2.132 54.15	1-87496-7	1-87611-6	1-87612-6
42	2.300 58.42	.190 4.83	1.990 50.55	2.704 68.68	2.904 73.76	2.132 54.15	.106 2.69	1.906 48.41	2.232 56.69	1-87496-8	1-87611-7	1-87612-7
44	2.400 60.96	.190 4.83	2.090 53.09	2.804 71.22	3.004 76.3	2.232 56.69	.106 2.69	2.006 50.95	2.332 59.23	1-87496-9	1-87611-8	1-87612-8
46	2.500 63.5	.190 4.83	2.190 55.63	2.904 73.76	3.104 78.84	2.332 59.23	.106 2.69	2.106 53.49	2.432 61.77	2-87496-0	1-87611-9	1-87612-9
48	2.600 66.04	.190 4.83	2.290 58.17	3.004 76.3	3.204 81.38	2.432 61.77	.106 2.69	2.206 56.03	2.532 64.31	2-87496-1	2-87611-0	2-87612-0
50	2.700 68.58	.190 4.83	2.390 60.71	3.104 78.84	3.304 83.92	2.532 64.31	.106 2.69	2.306 58.57	2.632 66.85	87496-1	2-87611-1	2-87612-1
52	2.800 71.12	.190 4.83	2.490 63.25	3.204 81.38	3.404 86.46	2.632 66.85	.106 2.69	2.406 61.11	2.732 69.39	2-87496-2	2-87611-2	2-87612-2
54	2.900 73.66	.190 4.83	2.590 65.79	3.304 83.92	3.504 89	2.732 69.39	.106 2.69	2.506 63.65	2.832 71.93	2-87496-3	2-87611-3	2-87612-3
56	3.000 76.2	.190 4.83	2.690 68.33	3.404 86.46	3.604 91.54	2.832 71.93	.106 2.69	2.606 66.19	2.932 74.47	2-87496-4	2-87611-4	2-87612-4
58	3.100 78.74	.190 4.83	2.790 70.87	3.504 89	3.704 94.08	2.932 74.47	.106 2.69	2.706 68.73	3.032 77.01	2-87496-5	2-87611-5	2-87612-5
60	3.200 81.28	.190 4.83	2.890 73.41	3.604 91.54	3.804 96.62	3.032 77.01	.106 2.69	2.806 71.27	3.132 79.55	2-87496-6	2-87611-6	2-87612-6

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

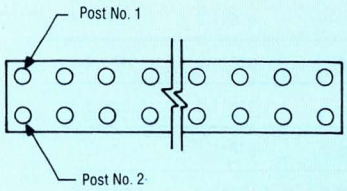
Note: These headers will mate with AMP Latch or Flexible Flat Cable Connector on side with .150 [3.81] dimension and Mod. IV or AMP Locking Clip Connector on side with .066 [1.68] dimension.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

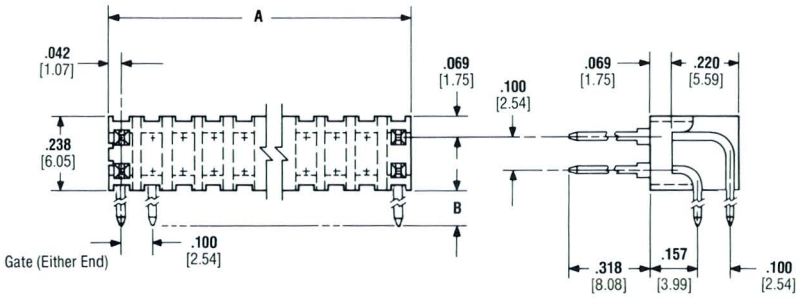
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Double Row, Right Angle Post Headers .100 [2.54] Centers

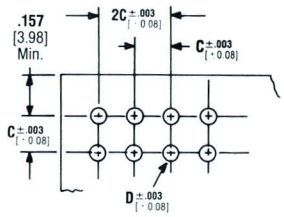
Material: Housing—Glass-Filled Nylon
Contact—Phosphor Bronze



Post Identification (Mating Face)



Recommended Pc Board Layout



C—Post centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	A Dim.	B=.110 [2.79] D=.035 [0.89]				B=.720 [18.29] D=.040 [1.02]		
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Gold/Nickel[2] Plated Posts*	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
2	.084 2.13	1-86479-3	87230-1	—	87563-1	87504-1	87565-1	87566-1
4	.184 4.67	1-86479-4	87230-2	—	87563-2	87504-2	87565-2	87566-2
6	.284 7.21	1-86479-5	87230-3	—	87563-3	87504-3	87565-3	87566-3
8	.384 9.75	1-86479-6	87230-4	—	87563-4	87504-4	87565-4	87566-4
10	.484 12.29	86479-3	87230-5	—	87563-5	87504-5	87565-5	87566-5
12	.584 14.83	86479-4	87230-6	—	87563-6	87504-6	87565-6	87566-6
14	.684 17.37	86479-5	87230-7	—	87563-7	87504-7	87565-7	87566-7
16	.784 19.91	86479-2	87230-8	—	87563-8	87504-8	87565-8	87566-8
18	.884 22.45	86479-6	87230-9	—	87563-9	87504-9	87565-9	87566-9
20	.984 24.99	86479-1	1-87230-0	—	1-87563-0	1-87504-0	1-87565-0	1-87566-0
22	1.084 27.53	1-86479-7	1-87230-1	87503-2	1-87563-1	1-87504-1	1-87565-1	1-87566-1
24	1.184 30.07	86479-7	1-87230-2	87503-3	1-87563-2	1-87504-2	1-87565-2	1-87566-2
26	1.284 32.61	1-86479-0	1-87230-3	87503-4	1-87563-3	1-87504-3	1-87565-3	1-87566-3
28	1.384 35.15	1-86479-8	1-87230-4	87503-5	1-87563-4	1-87504-4	1-87565-4	1-87566-4

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

*Post No. 22 is omitted for keying purposes.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:

1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

No. of Pos.	A Dim.	B=.110 [2.79] D=.035 [0.89]				B=.720 [18.29] D=.040 [1.02]		
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Gold/Nickel[2] Plated Posts*	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
30	**1.484** 37.69	1-86479-9	1-87230-5	87503-6	1-87563-5	1-87504-5	1-87565-5	1-87566-5
32	**1.584** 40.23	2-86479-0	1-87230-6	87503-7	1-87563-6	1-87504-6	1-87565-6	1-87566-6
34	**1.684** 42.77	2-86479-1	1-87230-7	87503-8	1-87563-7	1-87504-7	1-87565-7	1-87566-7
36	**1.784** 45.31	2-86479-2	1-87230-8	87503-9	1-87563-8	1-87504-8	1-87565-8	1-87566-8
38	**1.884** 47.85	2-86479-3	1-87230-9	1-87503-0	1-87563-9	1-87504-9	1-87565-9	1-87566-9
40	**1.984** 50.39	2-86479-4	2-87230-0	87503-1	2-87563-0	2-87504-0	2-87565-0	2-87566-0
42	**2.084** 52.93	2-86479-5	2-87230-1	1-87503-1	2-87563-1	2-87504-1	2-87565-1	2-87566-1
44	**2.184** 55.47	2-86479-6	2-87230-2	1-87503-2	2-87563-2	2-87504-2	2-87565-2	2-87566-2
46	**2.284** 58.01	2-86479-7	2-87230-3	1-87503-3	2-87563-3	2-87504-3	2-87565-3	2-87566-3
48	**2.384** 60.55	2-86479-8	2-87230-4	1-87503-4	2-87563-4	2-87504-4	2-87565-4	2-87566-4
50	**2.484** 63.09	2-86479-9	2-87230-5	1-87503-5	2-87563-5	2-87504-5	2-87565-5	2-87566-5
52	**2.584** 65.63	3-86479-0	2-87230-6	1-87503-6	2-87563-6	2-87504-6	2-87565-6	2-87566-6
54	**2.684** 68.17	3-86479-1	2-87230-7	1-87503-7	2-87563-7	2-87504-7	2-87565-7	2-87566-7
56	**2.784** 70.71	3-86479-2	2-87230-8	1-87503-8	2-87563-8	2-87504-8	2-87565-8	2-87566-8
58	**2.884** 73.25	3-86479-3	2-87230-9	1-87503-9	2-87563-9	2-87504-9	2-87565-9	2-87566-9
60	**2.984** 75.79	3-86479-4	3-87230-0	2-87503-0	3-87563-0	3-87504-0	3-87565-0	3-87566-0
62	**3.084** 78.33	3-86479-5	3-87230-1	2-87503-1	3-87563-1	3-87504-1	3-87565-1	3-87566-1
64	**3.184** 80.87	3-86479-6	3-87230-2	2-87503-2	3-87563-2	3-87504-2	3-87565-2	3-87566-2
66	**3.284** 83.41	3-86479-7	3-87230-3	2-87503-3	3-87563-3	3-87504-3	3-87565-3	3-87566-3
68	**3.384** 85.95	3-86479-8	3-87230-4	2-87503-4	3-87563-4	3-87504-4	3-87565-4	3-87566-4
70	**3.484** 88.49	3-86479-9	3-87230-5	2-87503-5	3-87563-5	3-87504-5	3-87565-5	3-87566-5
72	**3.584** 91.03	4-86479-0	3-87230-6	2-87503-6	3-87563-6	3-87504-6	3-87565-6	3-87566-6
74	**3.684** 93.57	4-86479-1	3-87230-7	2-87503-7	3-87563-7	3-87504-7	3-87565-7	3-87566-7
76	**3.784** 96.11	4-86479-2	3-87230-8	2-87503-8	3-87563-8	3-87504-8	3-87565-8	3-87566-8
78	**3.884** 98.65	4-86479-3	3-87230-9	2-87503-9	3-87563-9	3-87504-9	3-87565-9	3-87566-9
80	**3.984** 101.19	4-86479-4	4-87230-0	3-87503-0	4-87563-0	4-87504-0	4-87565-0	4-87566-0

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

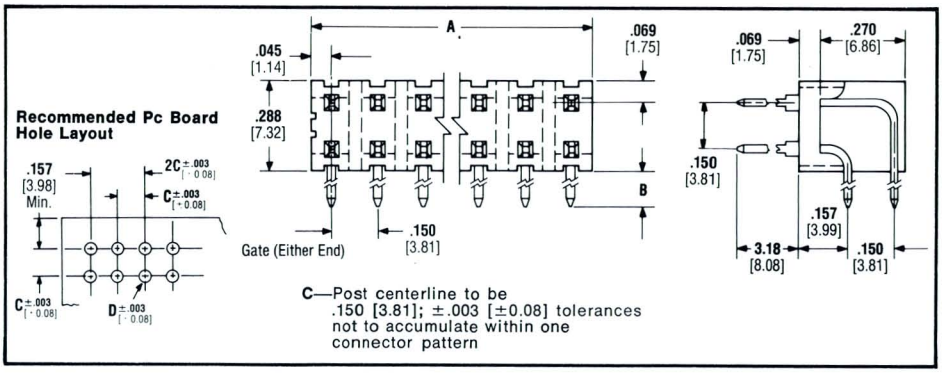
*Post No. 22 is omitted for keying purposes.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Double Row, Right Angle Post Headers .150 [3.81] Centers

Material: Housing—Glass-Filled Nylon
Contact—Phosphor Bronze



C—Post centerline to be .150 [3.81]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern

No. of Pos.	A Dim.	B=.110 [2.79] D=.035 [0.89] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
2	.090 2.29	87229-1	86415-6	87564-1
4	.240 6.1	87229-2	86415-7	87564-2
6	.390 9.91	87229-3	86415-8	87564-3
8	.540 13.72	87229-4	86415-2	87564-4
10	.690 17.53	87229-5	86415-1	87564-5
12	.840 21.34	87229-6	86415-9	87564-6
14	.990 25.15	87229-7	1-86415-0	87564-7
16	1.140 28.96	87229-8	1-86415-1	87564-8
18	1.290 32.77	87229-9	1-86415-2	87564-9
20	1.440 36.58	1-87229-0	1-86415-3	1-87564-0
22	1.590 40.39	1-87229-1	1-86415-4	1-87564-1
24	1.740 44.2	1-87229-2	1-86415-5	1-87564-2
26	1.890 48.01	1-87229-3	1-86415-6	1-87564-3
28	2.040 51.82	1-87229-4	1-86415-7	1-87564-4
30	2.190 55.63	1-87229-5	1-86415-8	1-87564-5
32	2.340 59.44	1-87229-6	1-86415-9	1-87564-6
34	2.490 63.25	1-87229-7	2-86415-0	1-87564-7
36	2.640 67.06	1-87229-8	2-86415-1	1-87564-8
38	2.790 70.87	1-87229-9	2-86415-2	1-87564-9
40	2.940 74.68	2-87229-0	2-86415-3	2-87564-0
42	3.090 78.49	2-87229-1	2-86415-4	2-87564-1
44	3.240 82.3	2-87229-2	2-86415-5	2-87564-2
46	3.390 86.11	2-87229-3	2-86415-6	2-87564-3
48	3.540 89.92	2-87229-4	2-86415-7	2-87564-4
50	3.690 93.73	2-87229-5	2-86415-8	2-87564-5
52	3.840 97.54	2-87229-6	2-86415-9	2-87564-6

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.0002000 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

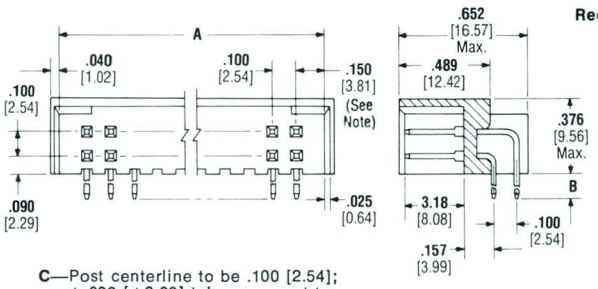
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Mod. II—.025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Double Row, Right Angle Post Headers .100 [2.54] Centers (with Pin Protection—3 sides)

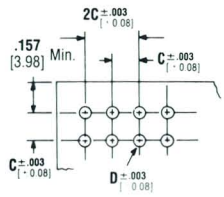
Mate with AMP Latch and FFC Connectors

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



C—Post centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

Recommended Pc Board Hole Layout



No. of Pos.	A Dim.	B=.125 [3.18] D=.035 [0.89] Gold/Nickel[1] Plated Posts	B=.125 [3.18] D=.035 [0.89] Gold/Nickel[2] Plated Posts	B=.125 [3.18] D=.035 [0.89] Bright Tin/Nickel[3] Plated Posts	B=.700 [17.78] D=.040 [1.02] Gold/Nickel[1] Plated Posts	B=.700 [17.78] D=.040 [1.02] Gold/Nickel[2] Plated Posts	B=.700 [17.78] D=.040 [1.02] Bright Tin/Nickel[3] Plated Posts
10	.700 17.78	87272-8	87567-1	87568-1	87480-1	87569-1	87570-1
12	.800 20.32	87272-9	87567-2	87568-2	87480-2	87569-2	87570-2
14	.900 22.86	1-87272-0	87567-3	87568-3	87480-3	87569-3	87570-3
16	1.000 25.4	1-87272-1	87567-4	87568-4	87480-4	87569-4	87570-4
18	1.100 27.94	1-87272-2	87567-5	87568-5	87480-5	87569-5	87570-5
20	1.200 30.48	87272-4	87567-6	87568-6	87480-6	87569-6	87570-6
22	1.300 33.02	1-87272-3	87567-7	87568-7	87480-7	87569-7	87570-7
24	1.400 35.56	1-87272-4	87567-8	87568-8	87480-8	87569-8	87570-8
26	1.500 38.1	87272-5	87567-9	87568-9	87480-9	87569-9	87570-9
28	1.600 40.64	1-87272-5	1-87567-0	1-87568-0	1-87480-0	1-87569-0	1-87570-0
30	1.700 43.18	1-87272-6	1-87567-1	1-87568-1	1-87480-1	1-87569-1	1-87570-1
32	1.800 45.72	87272-2	1-87567-2	1-87568-2	1-87480-2	1-87569-2	1-87570-2
34	1.900 48.26	87272-6	1-87567-3	1-87568-3	1-87480-3	1-87569-3	1-87570-3
36	2.000 50.8	1-87272-7	1-87567-4	1-87568-4	1-87480-4	1-87569-4	1-87570-4
38	2.100 53.34	1-87272-8	1-87567-5	1-87568-5	1-87480-5	1-87569-5	1-87570-5
40	2.200 55.88	87272-1	1-87567-6	1-87568-6	1-87480-6	1-87569-6	1-87570-6
42	2.300 58.42	1-87272-9	1-87567-7	1-87568-7	1-87480-7	1-87569-7	1-87570-7
44	2.400 60.96	2-87272-0	1-87567-8	1-87568-8	1-87480-8	1-87569-8	1-87570-8
46	2.500 63.5	2-87272-1	1-87567-9	1-87568-9	1-87480-9	1-87569-9	1-87570-9
48	2.600 66.04	2-87272-2	2-87567-0	2-87568-0	2-87480-0	2-87569-0	2-87570-0
50	2.700 68.58	87272-3	2-87567-1	2-87568-1	2-87480-1	2-87569-1	2-87570-1
52	2.800 71.12	2-87272-3	2-87567-2	2-87568-2	2-87480-2	2-87569-2	2-87570-2
54	2.900 73.66	2-87272-4	2-87567-3	2-87568-3	2-87480-3	2-87569-3	2-87570-3
56	3.000 76.2	2-87272-5	2-87567-4	2-87568-4	2-87480-4	2-87569-4	2-87570-4
58	3.100 78.74	2-87272-6	2-87567-5	2-87568-5	2-87480-5	2-87569-5	2-87570-5
60	3.200 81.28	87272-7	2-87567-6	2-87568-6	2-87480-6	2-87569-6	2-87570-6
62	3.300 83.82	2-87272-7	2-87567-7	2-87568-7	2-87480-7	2-87569-7	2-87570-7
64	3.400 86.36	2-87272-8	2-87567-8	2-87568-8	2-87480-8	2-87569-8	2-87570-8
66	3.500 88.9	2-87272-9	2-87567-9	2-87568-9	2-87480-9	2-87569-9	2-87570-9
68	3.600 91.44	3-87272-0	3-87567-0	3-87568-0	3-87480-0	3-87569-0	3-87570-0
70	3.700 93.98	3-87272-1	3-87567-1	3-87568-1	3-87480-1	3-87569-1	3-87570-1
72	3.800 96.52	3-87272-2	3-87567-2	3-87568-2	3-87480-2	3-87569-2	3-87570-2

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Note: These headers with .150 [3.81] dimension will mate with AMP Latch and Flexible Flat Cable Connectors.

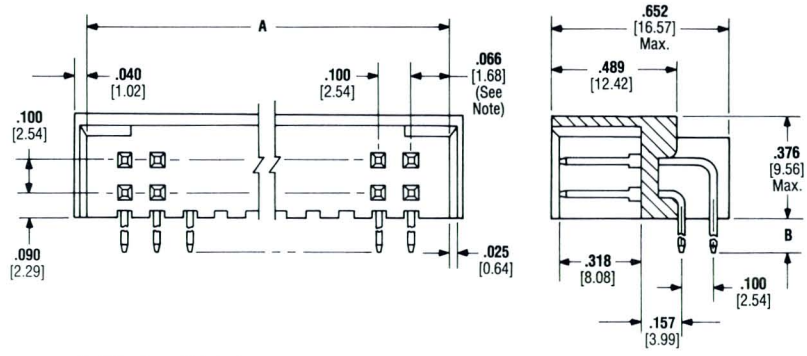
Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

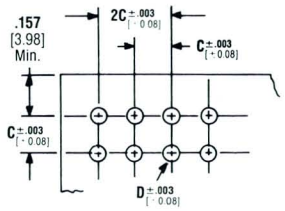
Double Row, Right Angle Post Headers .100 [2.54] Centers (with Pin Protection—3 sides)

Mate with Mod. IV and AMP Locking Clip Connectors

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



Recommended Pc Board Hole Layout



C—Post centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	A Dim.	B=.125 [3.18] D=.035 [0.89]			B=.700 [17.78] D=.040 [1.02]		
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
6	.412 10.46	87382-9	—	—	—	—	—
8	.512 13.	87382-7	87571-1	87572-1	87573-1	87574-1	87575-1
10	.612 15.54	1-87382-0	87571-2	87572-2	87573-2	87574-2	87575-2
12	.712 18.08	1-87382-1	87571-3	87572-3	87573-3	87574-3	87575-3
14	.812 20.62	1-87382-2	87571-4	87572-4	87573-4	87574-4	87575-4
16	.912 23.16	87382-6	87571-5	87572-5	87573-5	87574-5	87575-5
18	1.012 25.70	1-87382-3	87571-6	87572-6	87573-6	87574-6	87575-6
20	1.112 28.24	87382-3	87571-7	87572-7	87573-7	87574-7	87575-7
22	1.212 30.78	1-87382-4	87571-8	87572-8	87573-8	87574-8	87575-8
24	1.312 33.32	87382-4	87571-9	87572-9	87573-9	87574-9	87575-9

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Note: These headers with .066 [1.68] dimension will mate with Mod. IV and AMP Locking Clip Connectors.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:

1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

No. of Pos.	A Dim.	B=.125 [3.18] D=.035 [0.89]			B=.700 [17.78] D=.040 [1.02]		
		Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
26	**1.412** 35.86	87382-1	1-87571-0	1-87572-0	1-87573-0	1-87574-0	1-87575-0
28	**1.512** 38.4	1-87382-5	1-87571-1	1-87572-1	1-87573-1	1-87574-1	1-87575-1
30	**1.612** 40.94	87382-5	1-87571-2	1-87572-2	1-87573-2	1-87574-2	1-87575-2
32	**1.712** 43.48	1-87382-6	1-87571-3	1-87572-3	1-87573-3	1-87574-3	1-87575-3
34	**1.812** 46.02	1-87382-7	1-87571-4	1-87572-4	1-87573-4	1-87574-4	1-87575-4
36	**1.912** 48.56	1-87382-8	1-87571-5	1-87572-5	1-87573-5	1-87574-5	1-87575-5
38	**2.012** 51.1	1-87382-9	1-87571-6	1-87572-6	1-87573-6	1-87574-6	1-87575-6
40	**2.112** 53.64	87382-2	1-87571-7	1-87572-7	1-87573-7	1-87574-7	1-87575-7
42	**2.212** 56.18	2-87382-0	1-87571-8	1-87572-8	1-87573-8	1-87574-8	1-87575-8
44	**2.312** 58.72	2-87382-1	1-87571-9	1-87572-9	1-87573-9	1-87574-9	1-87575-9
46	**2.412** 61.26	2-87382-2	2-87571-0	2-87572-0	2-87573-0	2-87574-0	2-87575-0
48	**2.512** 63.8	2-87382-3	2-87571-1	2-87572-1	2-87573-1	2-87574-1	2-87575-1
50	**2.612** 66.34	2-87382-4	2-87571-2	2-87572-2	2-87573-2	2-87574-2	2-87575-2
52	**2.712** 68.88	2-87382-5	2-87571-3	2-87572-3	2-87573-3	2-87574-3	2-87575-3
54	**2.812** 71.42	2-87382-6	2-87571-4	2-87572-4	2-87573-4	2-87574-4	2-87575-4
56	**2.912** 73.96	2-87382-7	2-87571-5	2-87572-5	2-87573-5	2-87574-5	2-87575-5
58	**3.012** 76.5	2-87382-8	2-87571-6	2-87572-6	2-87573-6	2-87574-6	2-87575-6
60	**3.112** 79.04	2-87382-9	2-87571-7	2-87572-7	2-87573-7	2-87574-7	2-87575-7
62	**3.212** 81.58	3-87382-0	2-87571-8	2-87572-8	2-87573-8	2-87574-8	2-87575-8
64	**3.312** 84.12	3-87382-1	2-87571-9	2-87572-9	2-87573-9	2-87574-9	2-87575-9
66	**3.412** 86.66	3-87382-2	3-87571-0	3-87572-0	3-87573-0	3-87574-0	3-87575-0
68	**3.512** 89.2	3-87382-3	3-87571-1	3-87572-1	3-87573-1	3-87574-1	3-87575-1
70	**3.612** 91.74	3-87382-4	3-87571-2	3-87572-2	3-87573-2	3-87574-2	3-87575-2
72	**3.712** 94.28	87382-8	3-87571-3	3-87572-3	3-87573-3	3-87574-3	3-87575-3
74	**3.812** 96.82	3-87382-5	3-87571-4	3-87572-4	3-87573-4	3-87574-4	3-87575-4

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Note: These headers with .066 [1.68] dimension will mate with Mod. IV and AMP Locking Clip Connectors.

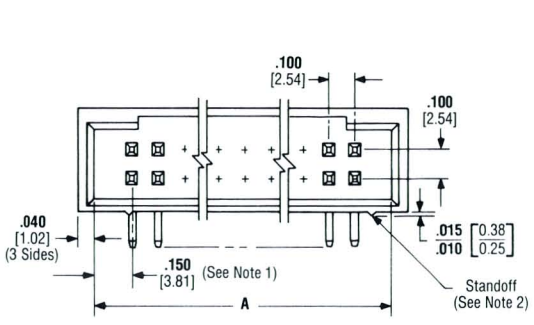
Mod. II—.025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

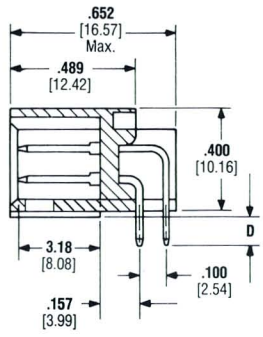
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Double Row, Right Angle Post Headers .100 [2.54] Centers (with Pin Protection—4 sides—and Detent Slots)

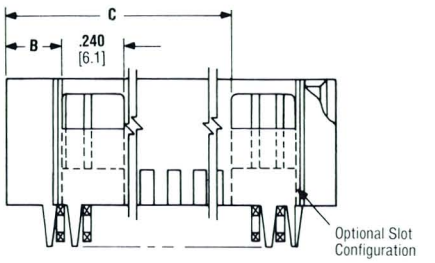
Mate with AMP Latch and FFC Connectors

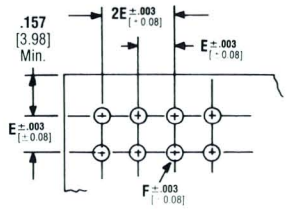
Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze





Recommended Pc Board Hole Layout





E—Post centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	Dimensions A	B	C	D = .135 [3.43] F = .035 [0.89] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	D = .645 [16.38] F = .040 [1.02] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
8	.600 15.24	.490 12.45	—	87476-9	87576-1	87577-1	87580-1	87581-1	87582-1
10	.700 17.78	.290 7.37	—	87476-2	87576-2	87577-2	87580-2	87581-2	87582-2
12	.800 20.32	.290 7.37	—	1-87476-1	87576-3	87577-3	87580-3	87581-3	87582-3
14	.900 22.86	.390 9.91	—	1-87476-2	87576-4	87577-4	87580-4	87581-4	87582-4
16	1.000 25.4	.490 12.45	—	1-87476-3	87576-5	87577-5	87580-5	87581-5	87582-5
18	1.100 27.94	.190 4.83	—	1-87476-4	87576-6	87577-6	87580-6	87581-6	87582-6
20	1.200 30.48	.190 4.83	.890 22.61	87476-1	87576-7	87577-7	87580-7	87581-7	87582-7
22	1.300 33.02	.190 4.83	.990 25.15	1-87476-5	87576-8	87577-8	87580-8	87581-8	87582-8
24	1.400 35.56	.190 4.83	1.090 27.69	1-87476-6	87576-9	87577-9	87580-9	87581-9	87582-9
26	1.500 38.1	.190 4.83	1.190 30.23	87476-3	1-87576-0	1-87577-0	1-87580-0	1-87581-0	1-87582-0

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Notes: 1. These headers with .150 [3.81] dimension will mate with AMP Latch and Flexible Cable Connectors.
2. Standoffs—8 thru 18 position; 2 required, located as shown.
20 thru 38 position; 3 required, located as shown plus 1 (one) centered.
40 thru 72 position; 4 required, located as shown with 2 evenly spaced within remaining length.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:

1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

No. of Pos.	Dimensions			D=.135 [3.43] F=.035 [0.89]			D=.645 [16.38] F=.040 [1.02]		
	A	B	C	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
28	**1.600** 40.64	**.190** 4.83	**1.290** 32.77	1-87476-7	1-87576-1	1-87577-1	1-87580-1	1-87581-1	1-87582-1
30	**1.700** 43.18	**.190** 4.83	**1.390** 35.31	1-87476-8	1-87576-2	1-87577-2	1-87580-2	1-87581-2	1-87582-2
32	**1.800** 45.72	**.190** 4.83	**1.490** 37.85	1-87476-9	1-87576-3	1-87577-3	1-87580-3	1-87581-3	1-87582-3
34	**1.900** 48.26	**.190** 4.83	**1.590** 40.39	87476-4	1-87576-4	1-87577-4	1-87580-4	1-87581-4	1-87582-4
36	**2.000** 50.8	**.190** 4.83	**1.690** 42.93	2-87476-0	1-87576-5	1-87577-5	1-87580-5	1-87581-5	1-87582-5
38	**2.100** 53.34	**.190** 4.83	**1.790** 45.47	87476-5	1-87576-6	1-87577-6	1-87580-6	1-87581-6	1-87582-6
40	**2.200** 55.88	**.190** 4.83	**1.890** 48.01	87476-6	1-87576-7	1-87577-7	1-87580-7	1-87581-7	1-87582-7
42	**2.300** 58.42	**.190** 4.83	**1.990** 50.55	2-87476-1	1-87576-8	1-87577-8	1-87580-8	1-87581-8	1-87582-8
44	**2.400** 60.96	**.190** 4.83	**2.090** 53.09	2-87476-2	1-87576-9	1-87577-9	1-87580-9	1-87581-9	1-87582-9
46	**2.500** 63.5	**.190** 4.83	**2.190** 55.63	2-87476-3	2-87576-0	2-87577-0	2-87580-0	2-87581-0	2-87582-0
48	**2.600** 66.04	**.190** 4.83	**2.290** 58.17	2-87476-4	2-87576-1	2-87577-1	2-87580-1	2-87581-1	2-87582-1
50	**2.700** 68.58	**.190** 4.83	**2.390** 60.71	87476-7	2-87576-2	2-87577-2	2-87580-2	2-87581-2	2-87582-2
52	**2.800** 71.12	**.190** 4.83	**2.490** 63.25	2-87476-5	2-87576-3	2-87577-3	2-87580-3	2-87581-3	2-87582-3
54	**2.900** 73.66	**.190** 4.83	**2.590** 65.79	2-87476-6	2-87576-4	2-87577-4	2-87580-4	2-87581-4	2-87582-4
56	**3.000** 76.2	**.190** 4.83	**2.690** 68.33	2-87476-7	2-87576-5	2-87577-5	2-87580-5	2-87581-5	2-87582-5
58	**3.100** 78.74	**.190** 4.83	**2.790** 70.87	2-87476-8	2-87576-6	2-87577-6	2-87580-6	2-87581-6	2-87582-6
60	**3.200** 81.28	**.190** 4.83	**2.890** 73.41	87476-8	2-87576-7	2-87577-7	2-87580-7	2-87581-7	2-87582-7
62	**3.300** 83.82	**.190** 4.83	**2.990** 75.95	2-87476-9	2-87576-8	2-87577-8	2-87580-8	2-87581-8	2-87582-8
64	**3.400** 86.36	**.190** 4.83	**3.090** 78.49	3-87476-0	2-87576-9	2-87577-9	2-87580-9	2-87581-9	2-87582-9
66	**3.500** 88.9	**.190** 4.83	**3.190** 81.03	3-87476-1	3-87576-0	3-87577-0	3-87580-0	3-87581-0	3-87582-0
68	**3.600** 91.44	**.190** 4.83	**3.290** 83.57	3-87476-2	3-87576-1	3-87577-1	3-87580-1	3-87581-1	3-87582-1
70	**3.700** 93.98	**.190** 4.83	**3.390** 86.11	3-87476-3	3-87576-2	3-87577-2	3-87580-2	3-87581-2	3-87582-2
72	**3.800** 96.52	**.190** 4.83	**3.490** 88.65	1-87476-0	3-87576-3	3-87577-3	3-87580-3	3-87581-3	3-87582-3

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Notes: 1. These headers with .150 [3.81] dimension will mate with AMP Latch and Flexible Cable Connectors.
2. Standoffs—8 thru 18 position; 2 required, located as shown.
20 thru 38 position; 3 required, located as shown plus 1 (one) centered.
40 thru 72 position; 4 required, located as shown with 2 evenly spaced within remaining length.

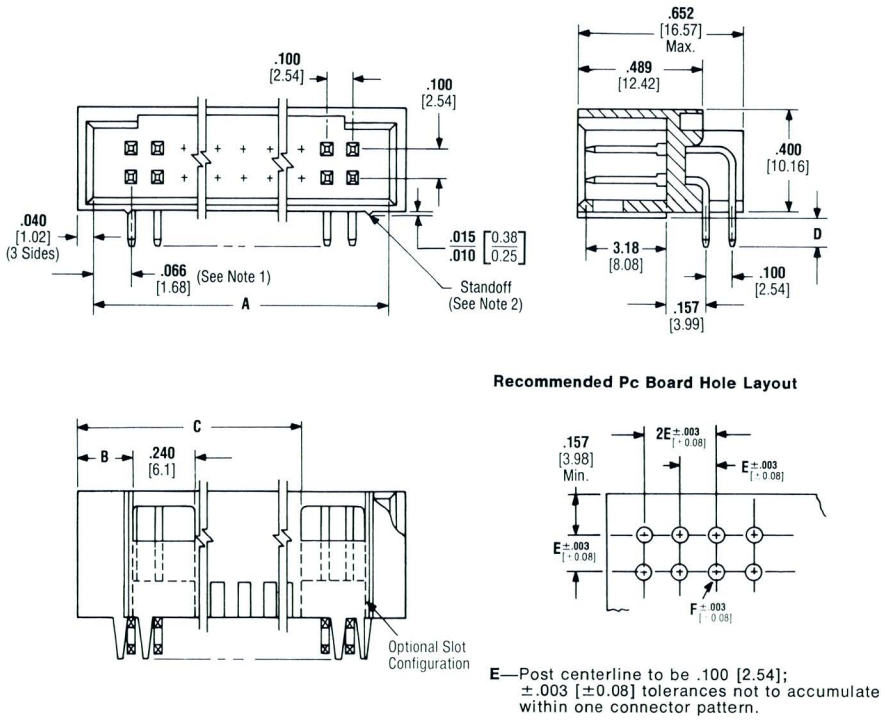
Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:
1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

Double Row, Right Angle Post Headers .100 [2.54] Centers (with Pin Protection—4 sides—and Detent Slots)

Mate with Mod. IV and AMP Locking Clip Connectors

Material: Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze



E—Post centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	Dimensions A	B	C	D=.135 [3.43] F=.035 [0.89] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	D=.645 [16.38] F=.040 [1.02] Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
8	.432 10.97	.206 5.23	—	3-87516-4	87578-1	87579-1	87583-1	87584-1	87585-1
10	.532 13.51	.206 5.23	—	87516-1	87578-2	87579-2	87583-2	87584-2	87585-2
12	.632 16.05	.206 5.23	—	87516-2	87578-3	87579-3	87583-3	87584-3	87585-3
14	.732 18.59	.306 7.77	—	87516-3	87578-4	87579-4	87583-4	87584-4	87585-4
16	.832 21.13	.306 7.77	—	87516-4	87578-5	87579-5	87583-5	87584-5	87585-5
18	.932 23.67	.406 10.31	—	87516-5	87578-6	87579-6	87583-6	87584-6	87585-6
20	1.032 26.21	.106 2.69	.806 20.47	87516-6	87578-7	87579-7	87583-7	87584-7	87585-7
22	1.132 28.75	.106 2.69	.906 23.01	87516-7	87578-8	87579-8	87583-8	87584-8	87585-8
24	1.232 31.29	.106 2.69	1.006 25.55	87516-8	87578-9	87579-9	87583-9	87584-9	87585-9
26	1.332 33.83	.106 2.69	1.106 28.09	87516-9	1-87578-0	1-87579-0	1-87583-0	1-87584-0	1-87585-0

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Notes: 1. These headers with .066 [1.68] dimension will mate with Mod. IV and AMP Locking Clip Connectors.
2. Standoffs—8 thru 18 position; 2 required, located as shown.
20 thru 38 position; 3 required, located as shown plus 1 (one) centered.
40 thru 74 position; 4 required, located as shown with 2 evenly spaced within the remaining length.

Mod. II — .025 x .025 [0.64 x 0.64] Header Assemblies (Cont'd.)

Dimensioning:

1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

No. of Pos.	Dimensions			D=.135 [3.43] F=.035 [0.89]			D=.645 [16.38] F=.040 [1.02]		
	A	B	C	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts	Gold/Nickel[1] Plated Posts	Gold/Nickel[2] Plated Posts	Bright Tin/Nickel[3] Plated Posts
28	**1.432** 36.37	**.106** 2.69	**1.206** 30.63	1-87516-0	1-87578-1	1-87579-1	1-87583-1	1-87584-1	1-87585-1
30	**1.532** 38.91	**.106** 2.69	**1.306** 33.17	1-87516-1	1-87578-2	1-87579-2	1-87583-2	1-87584-2	1-87585-2
32	**1.632** 41.45	**.106** 2.69	**1.406** 35.71	1-87516-2	1-87578-3	1-87579-3	1-87583-3	1-87584-3	1-87585-3
34	**1.732** 43.99	**.106** 2.69	**1.506** 38.25	1-87516-3	1-87578-4	1-87579-4	1-87583-4	1-87584-4	1-87585-4
36	**1.832** 46.53	**.106** 2.69	**1.606** 40.79	1-87516-4	1-87578-5	1-87579-5	1-87583-5	1-87584-5	1-87585-5
38	**1.932** 49.07	**.106** 2.69	**1.706** 43.33	1-87516-5	1-87578-6	1-87579-6	1-87583-6	1-87584-6	1-87585-6
40	**2.032** 51.61	**.106** 2.69	**1.806** 45.87	1-87516-6	1-87578-7	1-87579-7	1-87583-7	1-87584-7	1-87585-7
42	**2.132** 54.15	**.106** 2.69	**1.906** 48.41	1-87516-7	1-87578-8	1-87579-8	1-87583-8	1-87584-8	1-87585-8
44	**2.232** 56.69	**.106** 2.69	**2.006** 50.95	1-87516-8	1-87578-9	1-87579-9	1-87583-9	1-87584-9	1-87585-9
46	**2.332** 59.23	**.106** 2.69	**2.106** 53.49	1-87516-9	2-87578-0	2-87579-0	2-87583-0	2-87584-0	2-87585-0
48	**2.432** 61.77	**.106** 2.69	**2.206** 56.03	2-87516-0	2-87578-1	2-87579-1	2-87583-1	2-87584-1	2-87585-1
50	**2.532** 64.31	**.106** 2.69	**2.306** 58.57	2-87516-1	2-87578-2	2-87579-2	2-87583-2	2-87584-2	2-87585-2
52	**2.632** 66.85	**.106** 2.69	**2.406** 61.11	2-87516-2	2-87578-3	2-87579-3	2-87583-3	2-87584-3	2-87585-3
54	**2.732** 69.39	**.106** 2.69	**2.506** 63.65	2-87516-3	2187578-4	2-87579-4	2-87583-4	2-87584-4	2-87585-4
56	**2.832** 71.93	**.106** 2.69	**2.606** 66.19	2-87516-4	2-87578-5	2-87579-5	2-87583-5	2-87584-5	2-87585-5
58	**2.932** 74.47	**.106** 2.69	**2.706** 68.73	2-87516-5	2-87578-6	2-87579-6	2-87583-6	2-87584-6	2-87585-6
60	**3.032** 77.01	**.106** 2.69	**2.806** 71.27	2-87516-6	2-87578-7	2-87579-7	2-87583-7	2-87584-7	2-87585-7
62	**3.132** 79.55	**.106** 2.69	**2.906** 73.81	2-87516-7	2-87578-8	2-87579-8	2-87583-8	2-87584-8	2-87585-8
64	**3.232** 82.09	**.106** 2.69	**3.006** 76.35	2-87516-8	2-87578-9	2-87579-9	2-87583-9	2-87584-9	2-87585-9
66	**3.332** 84.63	**.106** 2.69	**3.106** 78.89	2-87516-9	3-87578-0	3-87579-0	3-87583-0	3-87584-0	3-87585-0
68	**3.432** 87.17	**.106** 2.69	**3.206** 81.43	3-87516-0	3-87578-1	3-87579-1	3-87583-1	3-87584-1	3-87585-1
70	**3.532** 89.71	**.106** 2.69	**3.306** 83.97	3-87516-1	3-87578-2	3-875792	3-87583-2	3-87584-2	3-87585-2
72	**3.632** 92.25	**.106** 2.69	**3.406** 86.51	3-87516-2	3-87578-3	3-87579-3	3-87583-3	3-87584-3	3-87585-3
74	**3.732** 94.79	**.106** 2.69	**3.506** 89.05	3-87516-3	3-87578-4	3-87579-4	3-87583-4	3-87584-4	3-87585-4

[1].000030 [0.00076] gold over .000050 [0.00127] nickel.
[2].000015 [0.00038] gold over .000050 [0.00127] nickel.
[3].000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel.

Notes: 1. These headers with .066 [1.68] dimension will mate with Mod. IV and AMP Locking Clip Connectors.
2. Standoffs—8 thru 18 position; 2 required, located as shown.
20 thru 38 position; 3 required, located as shown plus 1 (one) centered.
40 thru 74 position; 4 required, located as shown with 2 evenly spaced within the remaining length.

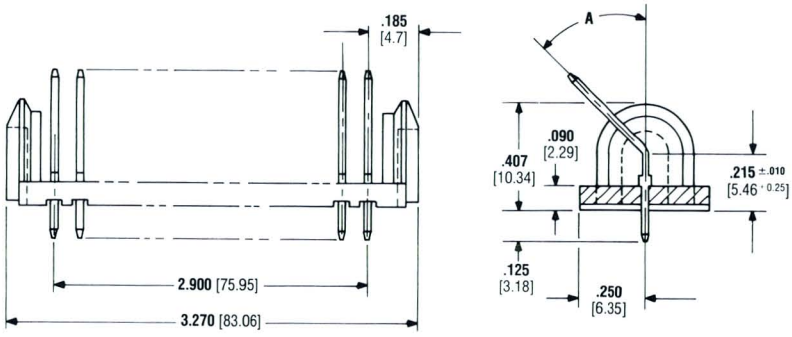
Mod. II — .025 x .025 [0.64 x 0.64] Special Header Assemblies

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

Single Row, Multi-Angle Post Header .100 [2.54] Centers

Mates with AMP FFC Connectors

Material and Finish:
Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze,
.000015 [0.00038] Gold over
.000050 [0.00127] Nickel Plated

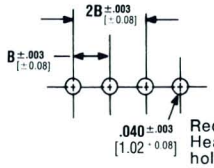


No. of Pos.	A*	Part No.
30	90°	87241-1

*Consult AMP Incorporated for other degrees of angle.

Note: This header assembly mates with AMP Flexible Flat Cable Connector with cable-to-board latch style housing, **Part No. 2-86793-5.**

Recommended Pc Board Hole Layout



Recommended Hole Dia.—Header will fit in larger hole dia. if required.

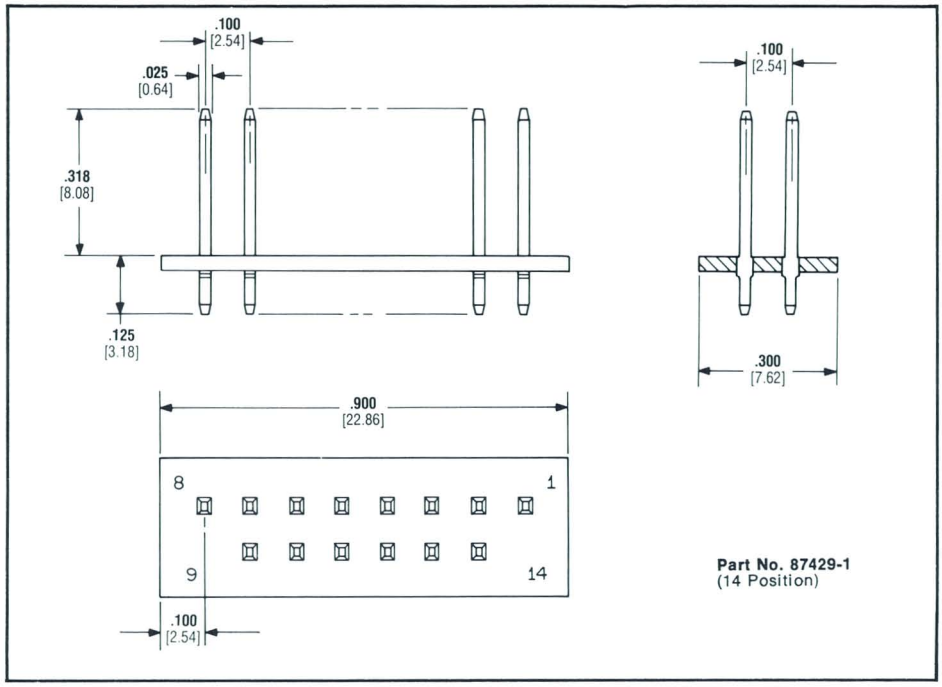
B—Post centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

Mod. II — .025 x .025 [0.64 x 0.64] Special Header Assemblies (Cont'd.)

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

Double Row, Straight Post Header .100 [2.54] Centers (Keyed, with Molded-In Circuit Identification)

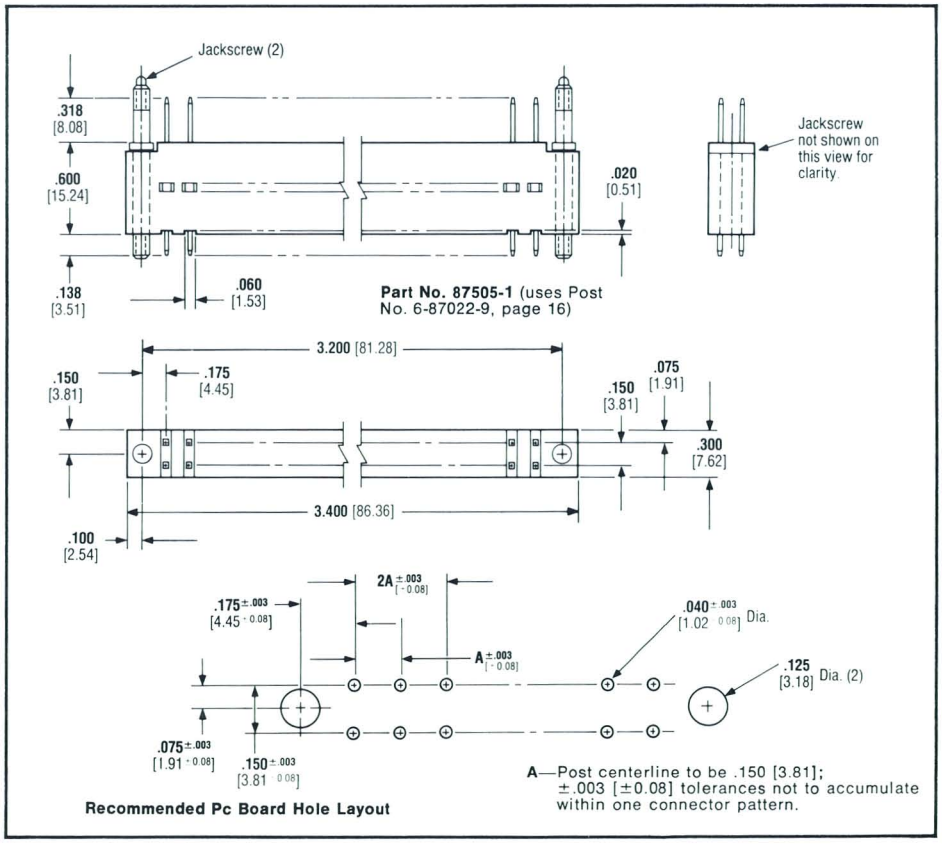
Material and Finish:
Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze,
.000030 [0.00076] Gold over
.000050 [0.00127] Nickel Plated



Part No. 87429-1
(14 Position)

Double Row, Straight Post Header .150 [3.81] Centers (with Mounting Ears and Jackscrews)

Material and Finish:
Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze,
.000030 [0.00076] Gold over
.000050 [0.00127] Nickel Plated
Jackscrew—Passivated Stainless Steel



Part No. 87505-1 (uses Post No. 6-87022-9, page 16)

Recommended Pc Board Hole Layout

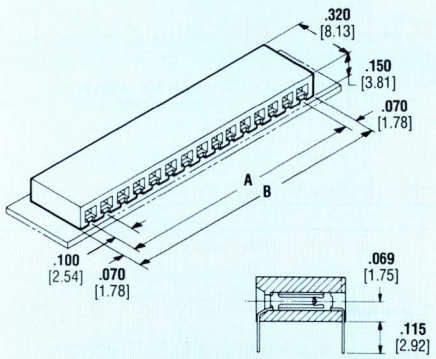
A—Post centerline to be .150 [3.81]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

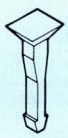
Mod. II — Receptacle Assemblies to Mate with .025 x .025 [0.64 x 0.64] Posts

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Single Row Connector Assemblies .100 [2.54] Centers (fully loaded)

Material and Finish:
Housing—Blue Diallyl Phthalate or Black Phenolic
Contact—Phosphor Bronze, Plated as Follows:
A—.000030 [0.00076] Gold over .000050 [0.00127] Nickel
B—Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000030 [0.00076] Gold on Contact Area
C—Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000050 [0.00127] Gold on Contact Area





Keying Plug
Part No. 86286-1

AMP Product Specification
No. 108-9007

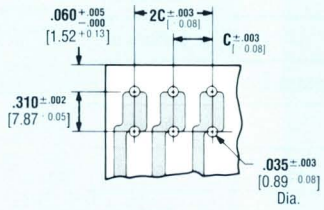
No. of Pos.	Dimensions		Connector Assembly Part No.		
			Diallyl Phthalate Housing		Phenolic Housing
	A	B	Plating Code A	Plating Code C	Plating Code B
2	.100 2.54	.240 6.1	6-85928-4	—	6-86105-4
3	.200 5.08	.340 8.64	6-85928-3	—	6-86105-3
4	.300 7.62	.440 11.18	5-85928-8	—	6-86105-2
5	.400 10.16	.540 13.21	6-85928-2	—	6-86105-1
6	.500 12.7	.640 16.26	5-85928-9	—	6-86105-0
7	.600 15.24	.740 18.8	6-85928-1	—	5-86105-9
8	.700 17.78	.840 21.34	6-85928-0	86357-1	5-86105-8
9	.800 20.32	.940 23.88	5-85928-7	—	5-86105-7
10	.900 22.86	1.040 26.42	85928-2	—	86105-1
11	1.000 25.4	1.140 28.45	85928-3	86357-3	86105-2
12	1.100 27.94	1.240 31.5	85928-4	—	86105-3
13	1.200 30.48	1.340 34.04	85928-5	—	86105-4
14	1.300 33.02	1.440 36.58	85928-6	—	86105-5
15	1.400 35.56	1.540 39.12	85928-7	—	86105-6
16	1.500 38.1	1.640 41.66	85928-8	86357-2	86105-7
17	1.600 40.64	1.740 44.2	85928-9	—	86105-8
18	1.700 43.18	1.840 46.74	1-85928-0	86357-4	86105-9
19	1.800 45.72	1.940 49.28	1-85928-1	—	1-86105-0
20	1.900 48.26	20.40 51.82	1-85928-2	—	1-86105-1
21	2.000 50.8	2.140 54.36	1-85928-3	—	1-86105-2
22	2.100 53.34	2.240 56.9	1-85928-4	—	1-86105-3
23	2.200 55.88	2.340 59.44	1-85928-5	—	1-86105-4
24	2.300 58.42	2.440 61.98	1-85928-6	86357-6	1-86105-5
25	2.400 60.96	2.540 64.52	1-85928-7	—	1-86105-6
26	2.500 63.5	2.640 67.06	1-85928-8	—	1-86105-7
27	2.600 66.04	2.740 69.6	1-85928-9	—	1-86105-8
28	2.700 68.58	2.840 72.14	2-85928-0	—	1-86105-9
29	2.800 71.12	2.940 74.68	2-85928-1	—	2-86105-0
30	2.900 73.66	3.040 77.22	2-85928-2	—	2-86105-1
31	3.000 76.2	3.140 79.76	2-85928-3	—	2-86105-2
32	3.100 78.74	3.240 82.3	2-85928-4	—	2-86105-3
33	3.200 81.28	3.340 84.84	2-85928-5	86357-5	2-86105-4

Mod. II — Receptacle Assemblies to Mate with .025 x .025 [0.64 x 0.64] Posts (Cont'd.)

Dimensioning:

1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Recommended Pc Board Hole Layout



C—Contact centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	Dimensions		Connector Assembly Part No.		
			Diallyl Phthalate Housing		Phenolic Housing
	A	B	Plating Code A	Plating Code C	Plating Code B
34	**3.300** 83.82	**3.440** 87.38	2-85928-6	—	2-86105-5
35	**3.400** 86.36	**3.540** 89.92	2-85928-7	—	2-86105-6
36	**3.500** 88.9	**3.640** 92.46	2-85928-8	—	2-86105-7
37	**3.600** 91.44	**3.740** 95	2-85928-9	—	2-86105-8
38	**3.700** 93.98	**3.840** 97.54	3-85928-0	—	2-86105-9
39	**3.800** 96.52	**3.940** 100.08	3-85928-1	—	3-86105-0
40	**3.900** 99.06	**4.040** 102.62	3-85928-2	—	3-86105-1
41	**4.000** 101.6	**4.140** 105.16	3-85928-3	—	3-86105-2
42	**4.100** 104.14	**4.240** 107.7	3-85928-4	—	3-86105-3
43	**4.200** 106.68	**4.340** 110.24	3-85928-5	—	3-86105-4
44	**4.300** 109.22	**4.440** 112.78	3-85928-6	—	3-86105-5
45	**4.400** 111.76	**4.540** 115.32	3-85928-7	—	3-86105-6
46	**4.500** 114.3	**4.640** 117.86	3-85928-8	—	3-86105-7
47	**4.600** 116.84	**4.740** 120.4	3-85928-9	—	3-86105-8
48	**4.700** 119.38	**4.840** 122.94	4-85928-0	—	3-86105-9
49	**4.800** 121.92	**4.940** 125.48	4-85928-1	—	4-86105-0
50	**4.900** 124.46	**5.040** 128.02	4-85928-2	—	4-86105-1
51	**5.000** 127	**5.140** 130.56	4-85928-3	—	4-86105-2
52	**5.100** 129.54	**5.240** 133.1	4-85928-4	—	4-86105-3
53	**5.200** 132.08	**5.340** 135.64	4-85928-5	—	4-86105-4
54	**5.300** 134.62	**5.440** 138.18	4-85928-6	—	4-86105-5
55	**5.400** 137.16	**5.540** 140.72	4-85928-7	—	4-86105-6
56	**5.500** 139.7	**5.640** 143.26	4-85928-8	—	4-86105-7
57	**5.600** 142.24	**5.740** 145.8	4-85928-9	—	4-86105-8
58	**5.700** 144.78	**5.840** 148.34	5-85928-0	—	4-86105-9
59	**5.800** 147.32	**5.940** 150.88	5-85928-1	—	5-86105-0
60	**5.900** 149.86	**6.040** 153.42	5-85928-2	—	5-86105-1
61	**6.000** 152.4	**6.140** 155.96	5-85928-3	—	5-86105-2
62	**6.100** 154.94	**6.240** 158.5	5-85928-4	—	5-86105-3
63	**6.200** 157.48	**6.340** 161.04	5-85928-5	—	5-86105-4
64	**6.300** 160.02	**6.440** 163.58	5-85928-6	—	5-86105-5
65	**6.400** 162.56	**6.540** 166.12	85928-1	—	5-86105-6

AMP Product Specification No. 108-9007

Mod. II — Receptacle Assemblies to Mate with .025 x .025 [0.64 x 0.64] Posts (Cont'd.)

Dimensioning:

1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

Double Row Connector Assemblies .100 [2.54] Centers (fully loaded)

Material and Finish:

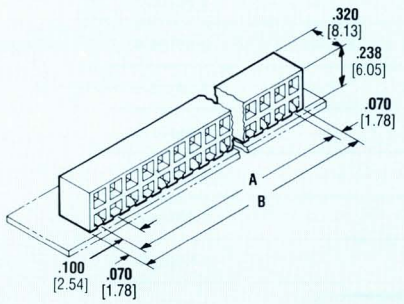
Housing—Blue Diallyl Phthalate or Black Phenolic

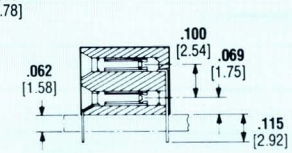
Contact—Phosphor Bronze, Plated as Follows:

A—.000030 [0.00076] Gold over .000050 [0.00127] Nickel

B—Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000030 [0.00076] Gold on Contact Area

C—Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000050 [0.00127] Gold on Contact Area





Keying Plug Part No. 86286-1

AMP Product Specification No. 108-9007

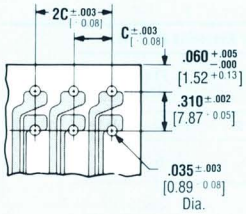
No. of Pos.	Dimensions		Connector Assembly Part No.		
			Diallyl Phthalate Housing		Phenolic Housing
	A	B	Plating Code A	Plating Code C	Plating Code B
4	.100 2.54	.240 6.1	6-85930-5	—	6-86063-2
6	.200 5.08	.340 8.64	6-85930-4	—	6-86063-3
8	.300 7.62	.440 11.18	6-85930-3	86356-7	6-86063-4
10	.400 10.16	.540 13.72	5-85930-8	—	86063-1
12	.500 12.7	.640 16.26	5-85930-9	—	86063-2
14	.600 15.24	.740 18.8	6-85930-0	—	86063-3
16	.700 17.78	.840 21.34	6-85930-1	86356-8	86063-4
18	.800 20.32	.940 23.88	6-85930-2	—	86063-5
20	.900 22.86	1.040 26.42	85930-4	—	86063-6
22	1.000 25.4	1.140 28.96	85930-5	—	86063-7
24	1.100 27.94	1.240 31.5	85930-6	—	86063-8
26	1.200 30.48	1.340 34.04	85930-7	—	86063-9
28	1.300 33.02	1.440 36.58	85930-8	86356-1	1-86063-0
30	1.400 35.56	1.540 39.12	85930-9	86356-5	1-86063-1
32	1.500 38.1	1.640 41.66	1-85930-0	—	1-86063-2
34	1.600 40.64	1.740 44.2	1-85930-1	—	1-86063-3
36	1.700 43.18	1.840 46.74	1-85930-2	—	1-86063-4
38	1.800 45.72	1.940 49.28	1-85930-3	—	1-86063-5
40	1.900 48.26	2.040 51.82	1-85930-4	86356-6	1-86063-6
42	2.000 50.8	2.140 54.36	1-85930-5	—	1-86063-7
44	2.100 53.34	2.240 56.9	1-85930-6	—	1-86063-8
46	2.200 55.88	2.340 59.44	1-85930-7	—	1-86063-9
48	2.300 58.42	2.440 61.98	1-85930-8	—	2-86063-0
50	2.400 60.96	2.540 64.52	1-85930-9	—	2-86063-1
52	2.500 63.5	2.640 67.06	2-85930-0	86356-3	2-86063-2
54	2.600 66.04	2.740 69.6	2-85930-1	—	2-86063-3
56	2.700 68.58	2.840 72.14	2-85930-2	—	2-86063-4
58	2.800 71.12	2.940 74.68	2-85930-3	86356-2	2-86063-5
60	2.900 73.66	3.040 77.22	2-85930-4	86356-4	2-86063-6
62	3.000 76.2	3.140 79.76	2-85930-5	—	2-86063-7
64	3.100 78.74	3.240 82.3	2-85930-6	—	2-86063-8
66	3.200 81.28	3.340 84.84	2-85930-7	—	2-86063-9

Mod. II — Receptacle Assemblies to Mate with .025 x .025 [0.64 x 0.64] Posts (Cont'd.)

Dimensioning:

1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Recommended Pc Board Hole Layout



C—Contact centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern

No. of Pos.	Dimensions		Connector Assembly Part No.		
			Diallyl Phthalate Housing		Phenolic Housing
	A	B	Plating Code A	Plating Code C	Plating Code B
68	**3.300** 83.82	**3.440** 87.38	5-85930-7	—	3-86063-0
70	**3.400** 86.36	**3.540** 89.92	2-85930-8	—	3-86063-1
72	**3.500** 88.9	**3.640** 92.46	2-85930-9	—	3-86063-2
74	**3.600** 91.44	**3.740** 95	3-85930-0	—	3-86063-3
76	**3.700** 93.98	**3.840** 97.54	3-85930-1	—	3-86063-4
78	**3.800** 96.52	**3.940** 100.08	3-85930-2	—	3-86063-5
80	**3.900** 99.06	**4.040** 102.62	3-85930-3	—	3-86063-6
82	**4.000** 101.6	**4.140** 105.16	3-85930-4	—	3-86063-7
84	**4.100** 104.14	**4.240** 107.7	3-85930-5	—	3-86063-8
86	**4.200** 106.68	**4.340** 110.24	3-85930-6	—	3-86063-9
88	**4.300** 109.22	**4.440** 112.78	3-85930-7	—	4-86063-0
90	**4.400** 111.76	**4.540** 115.32	3-85930-8	—	4-86063-1
92	**4.500** 114.3	**4.640** 117.86	3-85930-9	—	4-86063-2
94	**4.600** 116.84	**4.740** 120.4	4-85930-0	—	4-86063-3
96	**4.700** 119.38	**4.840** 122.94	4-85930-1	—	4-86063-4
98	**4.800** 121.92	**4.940** 125.48	4-85930-2	—	4-86063-5
100	**4.900** 124.46	**5.040** 128.02	4-85930-3	—	4-86063-6
102	**5.000** 127	**5.140** 130.56	4-85930-4	—	4-86063-7
104	**5.100** 129.54	**5.240** 133.1	4-85930-5	—	4-86063-8
106	**5.200** 132.08	**5.340** 135.64	85930-3	—	4-86063-9
108	**5.300** 134.62	**5.440** 138.18	4-85930-6	—	5-86063-0
110	**5.400** 137.16	**5.540** 140.72	4-85930-7	—	5-86063-1
112	**5.500** 139.7	**5.640** 143.26	4-85930-8	—	5-86063-2
114	**5.600** 142.24	**5.740** 145.8	4-85930-9	—	5-86063-3
116	**5.700** 144.78	**5.840** 148.34	5-85930-0	—	5-86063-4
118	**5.800** 147.32	**5.940** 150.88	5-85930-1	—	5-86063-5
120	**5.900** 149.86	**6.040** 153.42	5-85930-2	—	5-86063-6
122	**6.000** 152.4	**6.140** 155.96	5-85930-3	—	5-86063-7
124	**6.100** 154.94	**6.240** 158.5	5-85930-4	—	5-86063-8
126	**6.200** 157.48	**6.340** 161.04	5-85930-5	—	5-86063-9
128	**6.300** 160.02	**6.440** 163.58	5-85930-6	—	6-86063-0
130	**6.400** 162.56	**6.540** 166.12	85930-1	—	6-86063-1

AMP Product Specification No. 108-9007

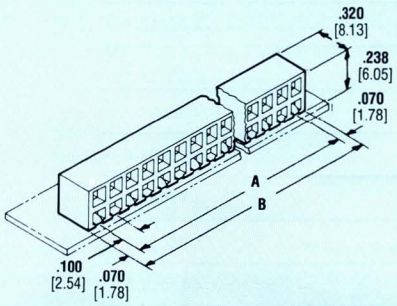
Mod. II — Receptacle Assemblies to Mate with .025 x .025 [0.64 x 0.64] Posts (Cont'd.)

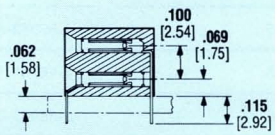
Dimensioning:

1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Double Row Connector Assemblies .100 [2.54] Centers (staggered loading)

Material and Finish:
Housing—Blue Diallyl Phthalate or Black Phenolic
Contact—Phosphor Bronze, Plated as Follows:
A—.000030 [0.00076] Gold over .000050 [0.00127] Nickel
B—Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000030 [0.00076] Gold on Contact Area





Keying Plug
Part No. 86286-1

AMP Product Specification
No. 108-9007

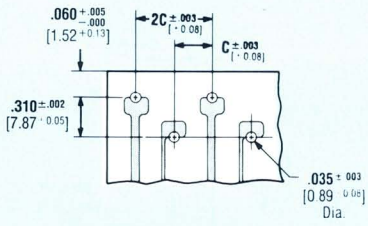
No. of Pos. Loaded	Dimensions		Connector Assembly Part No.	
			Diallyl Phthalate Housing	Phenolic Housing
	A	B	Plating Code A	Plating Code B
10	.900 22.86	1.040 26.42	85943-4	86007-1
11	1.000 25.4	1.140 28.96	85943-5	86007-2
12	1.100 27.94	1.240 31.5	85943-6	86007-3
13	1.200 30.48	1.340 34.04	85943-7	86007-4
14	1.300 33.02	1.440 36.58	85943-8	86007-5
15	1.400 35.56	1.540 39.12	85943-9	86007-6
16	1.500 38.1	1.640 41.66	1-85943-0	86007-7
17	1.600 40.64	1.740 44.2	1-85943-1	86007-8
18	1.700 43.18	1.840 46.74	1-85943-2	86007-9
19	1.800 45.72	1.940 49.28	1-85943-3	1-86007-0
20	1.900 48.26	2.040 51.82	1-85943-4	1-86007-1
21	2.000 50.8	2.140 54.36	1-85943-5	1-86007-2
22	2.100 53.34	2.240 56.9	1-85943-6	1-86007-3
23	2.200 55.88	2.340 59.44	1-85943-7	1-86007-4
24	2.300 58.42	2.440 61.98	1-85943-8	1-86007-5
25	2.400 60.96	2.540 64.52	1-85943-9	1-86007-6
26	2.500 63.5	2.640 67.06	2-85943-0	1-86007-7
27	2.600 66.04	2.740 69.6	2-85943-1	1-86007-8
28	2.700 68.58	2.840 72.14	2-85943-2	1-86007-9
29	2.800 71.12	2.940 74.68	2-85943-3	2-86007-0
30	2.900 73.66	3.040 77.22	2-85943-4	2-86007-1
31	3.000 76.2	3.140 79.76	2-85943-5	2-86007-2
32	3.100 78.74	3.240 82.3	2-85943-6	2-86007-3
33	3.200 81.28	3.340 84.84	2-85943-7	2-86007-4
34	3.300 83.82	3.440 87.38	85943-3	2-86007-5
35	3.400 86.36	3.540 89.92	2-85943-8	2-86007-6
36	3.500 88.9	3.640 92.46	2-85943-9	2-86007-7
37	3.600 91.44	3.740 95	3-85943-0	2-86007-8

Mod. II — Receptacle Assemblies to Mate with .025 x .025 [0.64 x 0.64] Posts (Cont'd.)

Dimensioning:

1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Recommended Pc Board Hole Layout



C—Contact centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern

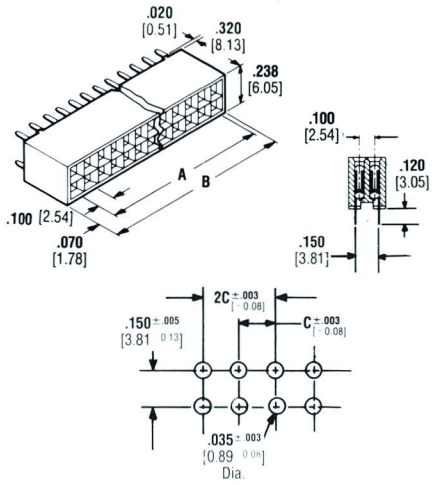
No. of Pos. Loaded	Dimensions		Connector Assembly Part No.	
			Diallyl Phthalate Housing	Phenolic Housing
	A	B	Plating Code A	Plating Code B
38	3.700 93.98	3.840 97.54	3-85943-1	2-86007-9
39	3.800 96.52	3.940 100.08	3-85943-2	3-86007-0
40	3.900 99.06	4.040 102.62	3-85943-3	3-86007-1
41	4.000 101.6	4.140 105.16	3-85943-4	3-86007-2
42	4.100 104.14	4.240 107.7	3-85943-5	3-86007-3
43	4.200 106.68	4.340 110.24	3-85943-6	3-86007-4
44	4.300 109.22	4.440 112.78	3-85943-7	3-86007-5
45	4.400 111.76	4.540 115.32	3-85943-8	3-86007-6
46	4.500 114.3	4.640 117.86	3-85943-9	3-86007-7
47	4.600 116.84	4.740 120.4	4-85943-0	3-86007-8
48	4.700 119.38	4.840 122.94	4-85943-1	3-86007-9
49	4.800 121.92	4.940 125.48	4-85943-2	4-86007-0
50	4.900 124.46	5.040 128.02	4-85943-3	4-86007-1
51	5.000 127	5.140 130.56	4-85943-4	4-86007-2
52	5.100 129.54	5.240 133.1	4-85943-5	4-86007-3
53	5.200 132.08	5.340 135.64	85943-1	4-86007-4
54	5.300 134.62	5.440 138.18	4-85943-6	4-86007-5
55	5.400 137.16	5.540 140.72	4-85943-7	4-86007-6
56	5.500 139.7	5.640 143.26	4-85943-8	4-86007-7
57	5.600 142.24	5.740 145.8	4-85943-9	4-86007-8
58	5.700 144.78	5.840 148.34	5-85943-0	4-86007-9
59	5.800 147.32	5.940 150.88	5-85943-1	5-86007-0
60	5.900 149.86	6.040 153.42	5-85943-2	5-86007-1
61	6.000 152.4	6.140 155.96	5-85943-3	5-86007-2
62	6.100 154.94	6.240 158.5	5-85943-4	5-86007-3
63	6.200 157.48	6.340 161.04	5-85943-5	5-86007-4
64	6.300 160.02	6.440 163.58	5-85943-6	5-86007-5
65	6.400 162.56	6.540 166.12	85943-2	5-86007-6

AMP Product Specification No. 108-9007

Mod. II — Receptacle Assemblies to Mate with .025 x .025 [0.64 x 0.64] Posts (Cont'd.)

Double Row Vertical Mount Connector Assemblies .100 [2.54] Centers

Material and Finish:
Housing—Glass-Filled Nylon
Contact—Phosphor Bronze,
Gold Flash over .000050 [0.00127]
Nickel on Entire Receptacle,
.000030 [0.00076] Gold on Contact Area



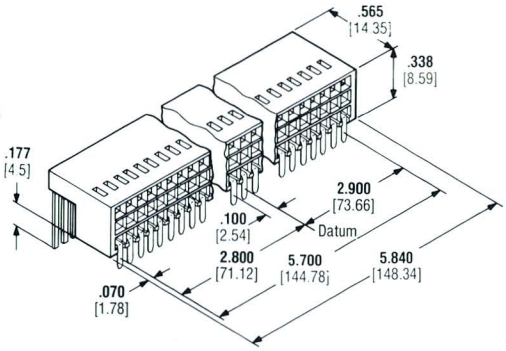
Recommended Pc Board Hole Layout

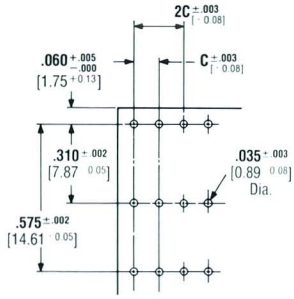
No. of Pos.	Dimensions A	Dimensions B	Part No.
8	.300 7.62	.440 11.18	86418-7
16	.700 17.78	.840 21.34	86418-5
20	.900 22.86	1.040 **26.42**	86418-1
28	1.300 33.02	1.440 36.58	86418-3
38	1.800 45.72	1.940 49.28	86418-4
40	1.900 48.26	2.040 51.82	86418-2
48	2.300 58.42	2.440 61.98	86148-6
50	2.400 60.96	2.540 64.52	86148-8

C—Contact centerline to be .100 [2.54]; ±.005 [±0.13] tolerances not to accumulate within one connector pattern

Triple Row 174-Position Connector Assembly .100 [2.54] Centers

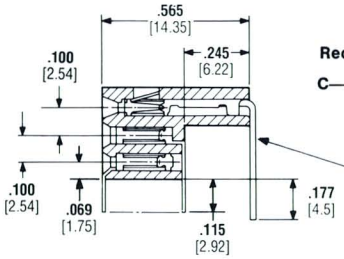
Material and Finish:
Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze,
Gold Flash over .000050 [0.00127]
Nickel on Entire Receptacle,
.000030 [0.00076] Gold on Contact Area





Recommended Pc Board Hole Layout

C—Contact centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern

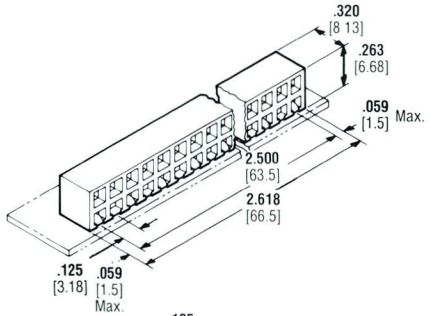


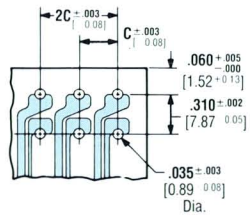
Part No. 87466-2

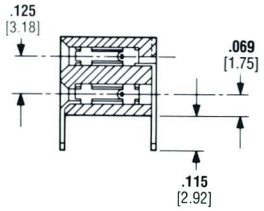
.025 [0.64] Dia. Brass Wires Crimped into This Row of Receptacles
Finish—.000100-.000150 [0.00254-0.00381] Bright Tin over .000050 [0.00127] Nickel

Double Row 42-Position Connector Assembly .125 [3.18] Centers

Material and Finish:
Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze,
Gold Flash over .000050 [0.00127]
Nickel on Entire Receptacle,
.000050 [0.00127] Gold on Contact Area







Part No. 87219-1

Recommended Pc Board Hole Layout

C—Contact centerline to be .125 [3.18]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern

Keying Plug
Part No. 86286-1

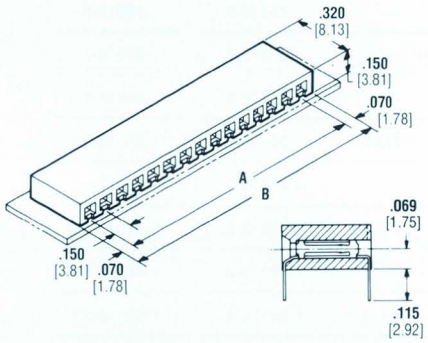
AMP Product Specification
No. 108-9007

Dimensioning:
1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

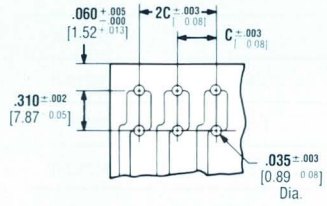
Mod. II — Receptacle Assemblies to Mate with .025 x .025 [0.64 x 0.64] Posts (Cont'd.)

Single Row Connector Assemblies .150 [3.81] Centers (fully loaded)

Material and Finish:
Housing—Blue Diallyl Phthalate or Black Phenolic
Contact—Phosphor Bronze, Plated as Follows:
A—.000030 [0.00076] Gold over .000050 [0.00127] Nickel
B—Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000030 [0.00076] Gold on Contact Area
C—Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000050 [0.00127] Gold on Contact Area
D—.000050 [0.00127] Gold over .000050 [0.00127] Nickel



Recommended Pc Board Hole Layout



C—Contact centerline to be .150 [3.81]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern

Keying Plug
Part No. 86286-1

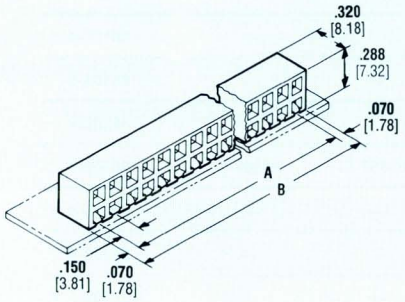
AMP Product Specification No. 108-9007

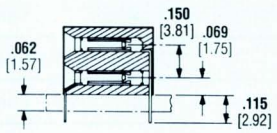
No. of Pos.	Dimensions		Connector Assembly Part No.			
			Diallyl Phthalate Housing			Phenolic Housing
	A	B	Plating Code A	Plating Code C	Plating Code D	Plating Code B
3	.300 7.62	.440 11.18	3-85929-8	—	—	—
4	.450 11.43	.590 14.99	3-85929-5	—	—	4-86106-0
5	.600 15.24	.740 18.8	3-85929-9	—	—	3-86106-9
6	.750 19.05	.890 22.61	3-85929-6	—	—	3-86106-8
7	.900 22.86	1.040 26.42	4-85929-0	—	—	3-86106-7
8	1.050 26.67	1.190 30.23	3-85929-7	—	—	3-86106-5
9	1.200 30.48	1.340 34.04	4-85929-1	—	—	3-86106-6
10	1.350 34.29	1.490 37.85	85929-2	—	—	86106-1
11	1.500 38.1	1.640 41.66	85929-3	—	—	86106-2
12	1.650 41.91	1.790 45.47	85929-4	—	—	86106-3
13	1.800 45.72	1.940 49.28	85929-5	—	—	86106-4
14	1.950 49.53	2.090 53.09	85929-6	—	—	86106-5
15	2.100 53.34	2.240 56.9	85929-7	—	—	86106-6
16	2.250 57.15	2.390 60.71	85929-8	86355-1	86087-1	86106-7
17	2.400 60.96	2.540 64.52	85929-9	—	—	86106-8
18	2.550 64.77	2.690 68.33	1-85929-0	—	—	86106-9
19	2.700 68.58	2.840 72.14	1-85929-1	—	—	1-86106-0
20	2.850 72.39	2.990 75.95	1-85929-2	—	—	1-86106-1
21	3.000 76.2	3.140 79.76	1-85929-3	—	—	1-86106-2
22	3.150 80.01	3.290 83.57	1-85929-4	—	—	1-86106-3
23	3.300 83.82	3.440 87.38	1-85929-5	—	—	1-86106-4
24	3.450 87.63	3.590 89.92	1-85929-6	86355-3	86087-3	1-86106-5
25	3.600 91.44	3.740 95	1-85929-7	—	—	1-86106-6
26	3.750 95.25	3.890 98.81	1-85929-8	—	—	1-86106-7
27	3.900 99.06	4.040 102.62	1-85929-9	—	—	1-86106-8
28	4.050 102.87	4.190 106.43	2-85929-0	86355-2	86087-2	1-86106-9
29	4.200 106.68	4.340 110.24	2-85929-1	—	—	2-86106-0
30	4.350 110.49	4.490 114.05	2-85929-2	—	—	2-86106-1
31	4.500 114.3	4.640 117.86	2-85929-3	—	—	2-86106-2
32	4.650 118.11	4.790 121.67	2-85929-4	—	—	2-86106-3
33	4.800 121.92	4.940 125.48	2-85929-5	—	—	2-86106-4
34	4.950 125.73	5.090 129.29	2-85929-6	—	—	2-86106-5
35	5.100 129.54	5.240 133.1	2-85929-7	—	—	2-86106-6
36	5.250 133.35	5.390 136.91	2-85929-8	—	—	2-86106-7
37	5.400 137.16	5.540 140.72	2-85929-9	—	—	2-86106-8
38	5.550 140.97	5.690 144.53	3-85929-0	—	—	2-86106-9
39	5.700 144.78	5.840 148.34	3-85929-1	—	—	3-86106-0
40	5.850 148.59	5.990 152.15	3-85929-2	86355-4	86087-4	3-86106-1
41	6.000 152.4	6.140 155.96	3-85929-3	—	—	3-86106-2
42	6.150 156.21	6.290 159.77	3-85929-4	—	—	3-86106-3
43	6.300 160.02	6.440 163.58	85929-1	—	—	3-86106-4

Mod. II — Receptacle Assemblies to Mate with .025 x .025 [0.64 x 0.64] Posts (Cont'd.)

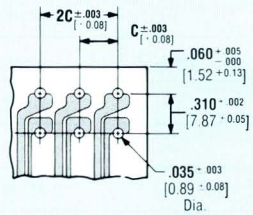
Double Row Connector Assemblies .150 [3.81] Centers (fully loaded)

Material and Finish:
Housing—Blue Diallyl Phthalate or Black Phenolic
Contact—Phosphor Bronze, Plated as Follows:
A—.000030 [0.00076] Gold over .000050 [0.00127] Nickel
B—Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000030 [0.00076] Gold on Contact Area
C—Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000050 [0.00127] Gold on Contact Area
D—.000050 [0.00127] Gold over .000050 [0.00127] Nickel





Recommended Pc Board Hole Layout



C—Contact centerline to be .150 [3.81]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern

Keying Plug
Part No. 86286-1

AMP Product Specification
No. 108-9007

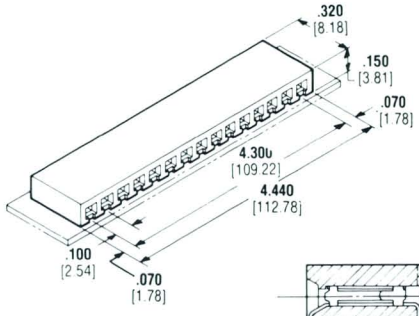
No. of Pos.	Dimensions		Connector Assembly Part No.			
			Diallyl Phthalate Housing			Phenolic Housing
	A	B	Plating Code A	Plating Code C	Plating Code D	Plating Code B
8	.450 11.43	.590 14.99	4-85927-0	—	—	4-86018-0
10	.600 15.24	.740 18.8	3-85927-5	—	—	3-86018-5
12	.750 19.05	.890 22.61	3-85927-6	—	—	3-86018-6
14	.900 22.86	1.040 26.42	3-85927-7	—	—	3-86018-7
16	1.050 26.67	1.190 28.96	3-85927-8	86358-1	—	3-86018-8
18	1.200 30.48	1.340 34.04	3-85927-9	—	—	3-86018-9
20	1.350 34.29	1.490 37.85	85927-3	—	86178-3	86018-3
22	1.500 38.1	1.640 41.66	85927-4	—	86178-4	86018-4
24	1.650 41.91	1.790 45.47	85927-5	—	86178-5	86018-5
26	1.800 45.72	1.940 49.28	85927-6	—	86178-6	86018-6
28	1.950 49.53	2.090 53.09	85927-7	—	86178-7	86018-7
30	2.100 53.34	2.240 56.9	85927-8	—	86178-8	86018-8
32	2.250 57.15	2.390 60.71	85927-9	86358-2	86178-9	86018-9
34	2.400 60.96	2.540 64.52	1-85927-0	—	1-86178-0	1-86018-0
36	2.550 64.77	2.690 68.33	1-85927-1	—	1-86178-1	1-86018-1
38	2.700 68.58	2.840 72.14	1-85927-2	—.	1-86178-2	1-86018-2
40	2.850 72.39	2.990 75.95	1-85927-3	—	1-86178-3	1-86018-3
42	3.000 76.2	3.140 79.76	1-85927-4	—	1-86178-4	1-86018-4
44	3.150 80.01	3.290 83.57	1-85927-5	—	1-86178-5	1-86018-5
46	3.300 83.82	3.440 87.38	1-85927-6	—	1-86178-6	1-86018-6
48	3.450 87.63	3.590 91.19	1-85927-7	—	1-86178-7	1-86018-7
50	3.600 91.44	3.740 95	85927-2	—	86178-2	86018-2
52	3.750 95.25	3.890 98.81	1-85927-8	—	1-86178-8	1-86018-8
54	3.900 99.06	4.040 102.62	1-85927-9	—	1-86178-9	1-86018-9
56	4.050 102.87	4.190 106.43	2-85927-0	—	2-86178-0	2-86018-0
58	4.200 106.68	4.340 110.24	2-85927-1	—	2-86178-1	2-86018-1
60	4.350 110.49	4.490 114.05	2-85927-2	—	2-86178-2	2-86018-2
62	4.500 114.3	4.640 117.86	2-85927-3	—	2-86178-3	2-86018-3
64	4.650 118.11	4.790 121.67	2-85927-4	—	2-86187-4	2-86018-4
66	4.800 121.92	4.940 125.48	2-85927-5	—	2-86178-5	2-86018-5
68	4.950 125.73	5.090 129.29	2-85927-6	—	2-86178-6	2-86018-6
70	5.100 129.54	5.240 133.1	2-85927-7	—	2-86178-7	2-86018-7
72	5.250 133.35	5.390 136.91	2-85927-8	—	2-86178-8	2-86018-8
74	5.400 137.16	5.540 140.72	2-85927-9	—	2-86178-9	2-86018-9
76	5.550 140.97	5.690 144.53	3-85927-0	—	3-86178-0	3-86018-0
78	5.700 144.78	5.840 148.34	3-85927-1	—	3-86178-1	3-86018-1
80	5.850 148.59	5.990 152.15	3-85927-2	—	3-86178-2	3-86018-2
82	6.000 152.4	6.140 155.96	3-85927-3	—	3-86178-3	3-86018-3
84	6.150 156.21	6.290 159.77	3-85927-4	—	3-86178-4	3-86018-4
86	6.300 160.02	6.440 163.58	85927-1	—	86178-1	86018-1

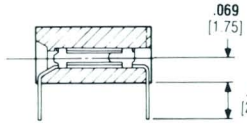
Mod. II — Special Receptacle Assemblies to Mate with .025 x .025 [0.64 x 0.64] Posts

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

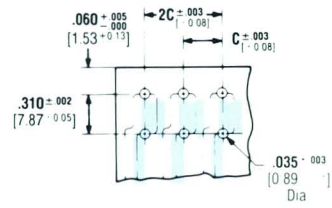
Single Row 44-Position Short Point-of-Contact Connector Assembly .100 [2.54] Centers

Material and Finish:
Housing—Black Phenolic
Contact—Phosphor Bronze, Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000030 [0.00076] Gold on Contact area





Part No. 87196-1

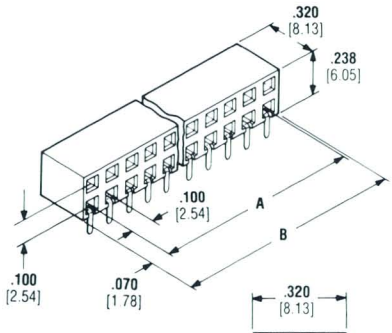


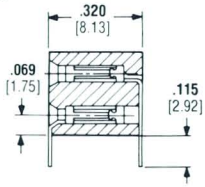
Recommended Pc Board Hole Layout

C—Contact centerline to be .100 [2.54]; ±.003 [0.08] tolerances not to accumulate within one connector pattern

Double Row Short Point-of-Contact Connector Assemblies .100 [2.54] Centers

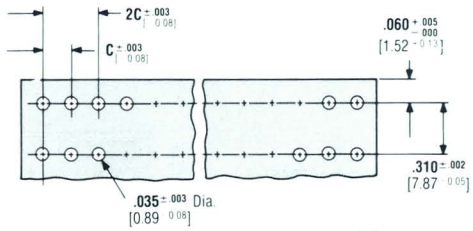
Material and Finish:
Housing—Black Phenolic
Contact—Phosphor Bronze, Plated as Follows:
A—.000100-.000200 [0.00254-0.00508] Bright Tin over .000050 [0.00127] Nickel
B—Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000030 [0.00076] Gold on Contact Area





No. of Pos.	Dimensions A	Dimensions B	Plating Code	Part No.
18	.800 20.32	.940 23.88	A	87406-1
20	.900 22.86	1.040 26.42	B	87068-1
22	1.000 25.4	1.140 28.96	B	87068-3
80	3.900 99.06	4.040 102.62	B	87068-6
100	4.900 124.46	5.040 128.02	B	87068-7
106	5.200 132.08	5.340 135.64	B	87068-4
118	5.800 147.32	5.940 150.88	B	87068-2

Recommended Pc Board Hole Layout



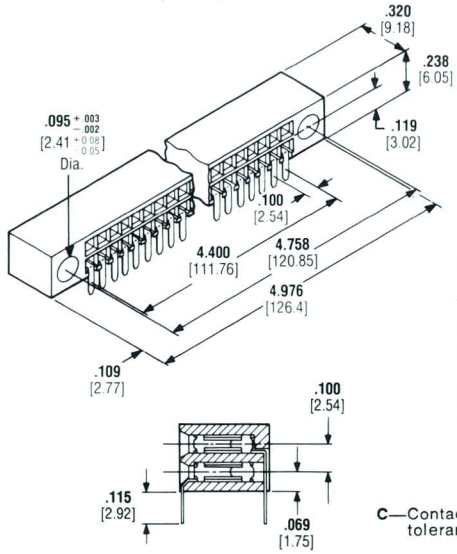
C—Contact centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern

Double Row 90-Position Short Point-of-Contact Connector Assemblies .100 [2.54] Centers

Material and Finish:
Housing—Blue Diallyl Phthalate
Contact—Phosphor Bronze, Plated as Follows:
A—.000030 [0.00076] Gold over .000050 [0.00127] Nickel
B—.000050 [0.00127] Gold over .000050 [0.00127] Nickel

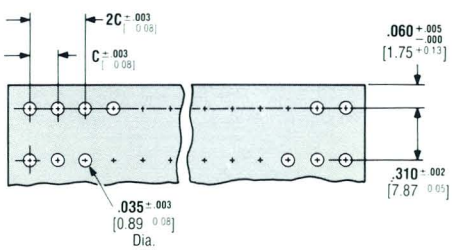
Keying Plug
Part No. 86286-1

AMP Product Specification
No. 108-9007



No. of Pos.	Plating Code	Part No.
90	A	86218-1
	B	86218-2

Recommended Pc Board Hole Layout



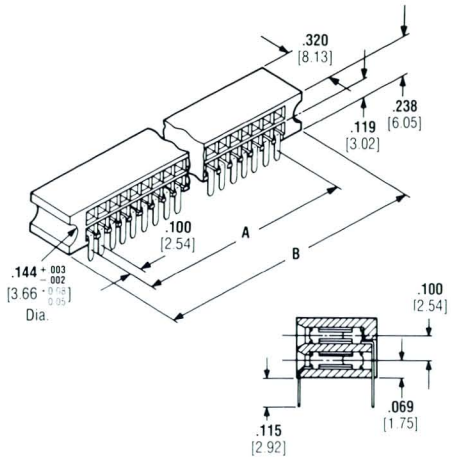
C—Contact centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern

Mod. II — Special Receptacle Assemblies to Mate with .025 x .025 [0.64 x 0.64] Posts (Cont'd.)

Double Row Connector Assemblies .100 [2.54] Centers (with Guide Pin Slots)

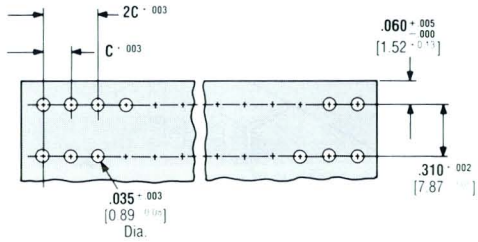
Material and Finish:
Housing—Blue Diallyl Phthalate
Contact—Phosphor Bronze, .000030 [0.00076] Gold over .000050 [0.00127] Nickel Plated

AMP Product Specification No. 108-9007



No. of Pos.	Dimensions A	Dimensions B	Part No.
22	1.000 25.4	1.358 34.49	86284-5
26	1.200 30.48	1.558 39.57	86284-6
54	2.600 66.04	2.958 75.13	86284-3
58	2.800 71.12	3.158 80.21	86284-2
60	2.900 73.66	3.258 82.75	86284-4
84	4.100 104.14	4.458 113.23	86284-1
102	5.000 127	5.358 136.09	86284-7

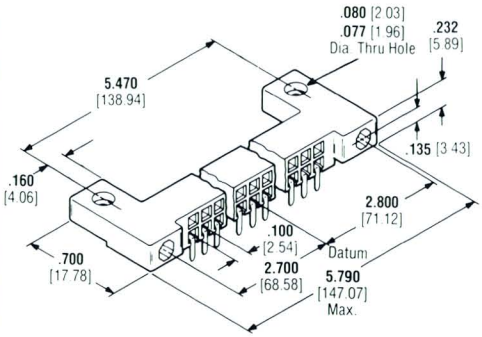
Recommended Pc Board Hole Layout

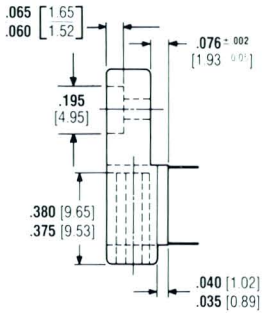


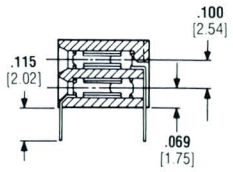
C—Contact centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern

Double Row 100 Position Connector Assembly .100 [2.54] Centers (for Special Mounting)

Material and Finish:
Housing—Blue Diallyl Phthalate
Contact—Phosphor Bronze, .000030 [0.00076] Gold over .000050 [0.00127] Nickel Plated



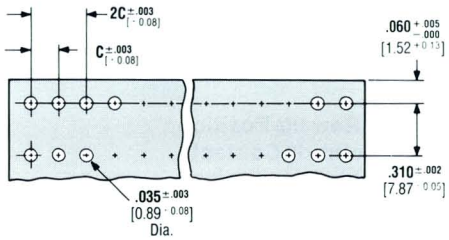




Part No. 86461-3

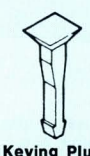
C—Contact centerline to be .100 [2.54]; ±.003 [±0.08] tolerances not to accumulate within one connector pattern

Recommended Pc Board Hole Layout

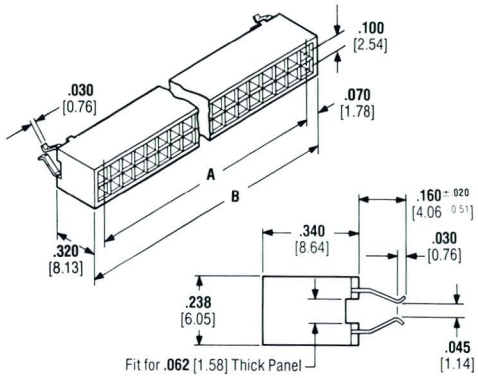


Double Row Connector Assemblies .100 [2.54] Centers (for Pc Board Edge Mounting)

Material and Finish:
Housing—Glass-Filled Nylon
Contact—Phosphor Bronze, Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000030 [0.00076] Gold on Contact Area



Keying Plug Part No. 86286-1



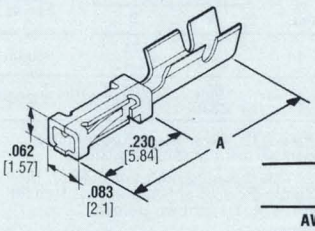
No. of Pos.	Dimensions A	Dimensions B	Part No.
16	.700 17.78	.840 21.34	87331-5
20	.900 22.86	1.040 26.42	87331-4
28	1.300 33.02	1.440 36.58	87331-3
38	1.800 45.72	1.940 49.28	87331-2
40	1.900 48.26	2.040 51.82	87331-1

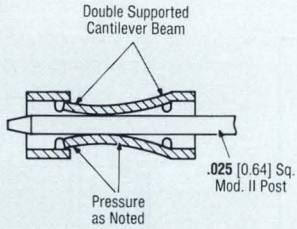
Mod. III — High Pressure Receptacles to Mate with .025 x .025 [0.64 x 0.64] Posts

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

Wire Crimp Receptacles with Insulation Support

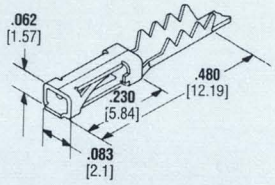
Material: Phosphor Bronze





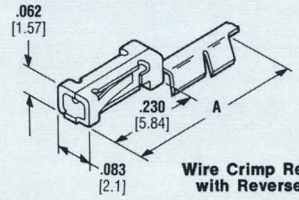
Wire Size Range AWG	Wire Size Range mm²	Ins. Dia. (Max.)	A Dim.	Plating Code	Part No. Without Locking Lance (Strip Form)	Part No. Without Locking Lance (Loose Piece)	Part No. With Locking Lance (Strip Form)	Part No. With Locking Lance (Loose Piece)	Crimping Tool No.
22-18	0.3-0.9	.090 2.29	.500 12.7	A	85884-1	85887-1	—	—	90291-1 or 90173-2
				B	85884-2	85887-2	—	—	
				C	85884-3	85887-3	—	—	
				D	85884-4	85887-4	—	—	
22-20	0.3-0.6	.079 2.01	.500 12.7	C	—	—	86292-1	86292-2	90291-1
26-24	0.12-0.2	.060 1.53	.500 12.7	A	85896-1	85897-1	—	—	90071-4
				B	85896-2	85897-2	—	—	
				C	85896-3	85897-3	86320-1	87162-1	
				D	85896-4	85897-4	—	—	
32-28	0.03-0.09	.060 1.53	.500 12.7	A	85955-1	85957-1	85886-1	85888-1	90071-4 or 90173-2
				B	85955-2	85957-2	85886-2	85888-2	
				C	85955-3	85957-3	85886-3	85888-3	
				D	85955-4	85957-4	85886-4	85888-4	
				E	—	—	85886-5	85885-5	
32-28	0.03-0.09	.030 0.77	.420 10.67	A	—	—	85911-1	85913-1	90169-1
				B	—	—	85911-2	85913-2	
				C	—	—	85911-3	85913-3	
				D	—	—	85911-4	85913-4	
				E	—	—	85911-5	85913-5	

Wire Crimp Receptacles, No Strip

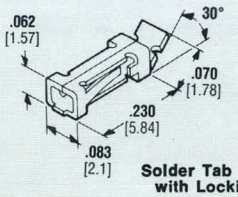


Ins. Dia. Range	Plating Code	Part No. with Locking Lance (Strip Form)
.045-.065 1.14-1.65	D	86470-1
.030-.040 0.76-1.02	D	86470-2

Special Type Receptacles



Wire Crimp Receptacle with Reverse Barrel



Solder Tab Receptacle with Locking Lance

Receptacle Type	Wire Size Range AWG	Wire Size Range mm²	Ins. Dia. (Max.)	A Dim.	Plating Code	Part No. (Strip Form)	Part No. (Loose Piece)	Crimping Tool No.
Wire Crimp with Reverse Barrel*	24-20	0.2-0.6	.071 1.8	.475 12.07	C	86497-1	86497-2	90278-1
	32-26	0.03-0.15	.050 1.27	.450 11.43	A	85952-1	86008-1	
					B	85952-2	86008-2	
					C	85952-3	86008-3	
					D	85952-4	86008-4	
Solder Tab with Locking Lance	—	—	—	—	A	—	86003-1	—
					B	—	86003-2	
					C	—	86003-3	
					D	—	86003-4	
					E	—	86003-5	

*Not for use in Mod. III Housings.

Contacts are plated as follows:
A—.000100 [0.00254] Gold over .000030 [0.00076] Nickel.
B—Gold Flash over .000030 [0.00076] Nickel on Entire Receptacle, .000100 [0.00254] Gold on Contact Area.
C—Gold Flash over .000030 [0.00076] Nickel on Entire Receptacle, .000030 [0.00076] Gold on Contact Area.
D—.000100-.000200 [0.00254-0.00508] Bright Tin over .000030 [0.00076] Nickel.
E—Gold Flash over .000030 [0.00076] Nickel on Entire Receptacle, .000150 [0.00381] Gold on Contact Area.

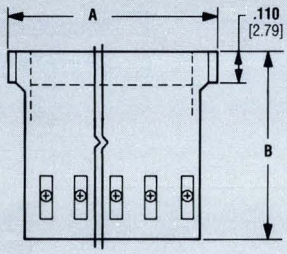
Mod. III — High Pressure Receptacle Housings to Mate with .025 x .025 [0.64 x 0.64] Posts

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Single Row 4- and 5-Position Receptacle Housing .125 [3.18] Centers (Keyed with Strain Relief)

Material: Natural Color Nylon

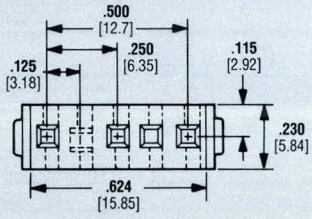
Keying Plug
Part No. 86181-1
(Use in Mod. III Contacts)



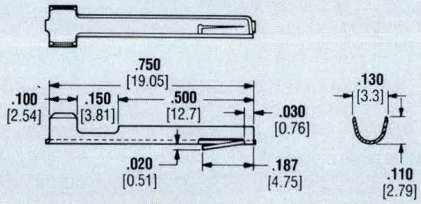
No. of Pos.	Dimensions A	Dimensions B	Housing Part No.*
4	.744 18.9	.675 17.15	86035-1**
5	.869 22.07	.700 17.78	87205-1

*Mod. III Wire Crimp Receptacles can be used in these housings.

This housing mates with Mod. II Single Row, Right Angle Post Header **No. 87427-1 (shown below).

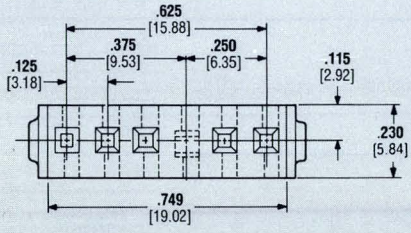


4 Active Positions



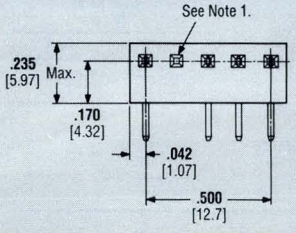
Strain Relief Plug
Part No. 87067-1

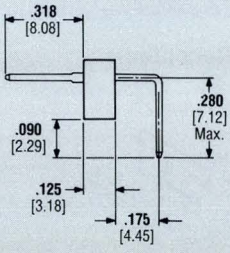
Note: This contact fits into the plugged cavities of Housings **No. 86035 and 87205** and is meant to provide strain relief for wires. Total insulation dia. accepted by this contact is .110 [2.79].



5 Active Positions

Single Row, Right Angle Post Header .125 [3.18] Centers (Mod. II, Keyed)





Material and Finish:
Housing—Black Glass-Filled Nylon
Contact—Phosphor Bronze, .000015 [0.00038] Gold over .000050 [0.00127] Nickel Plated
Part No. 87427-1

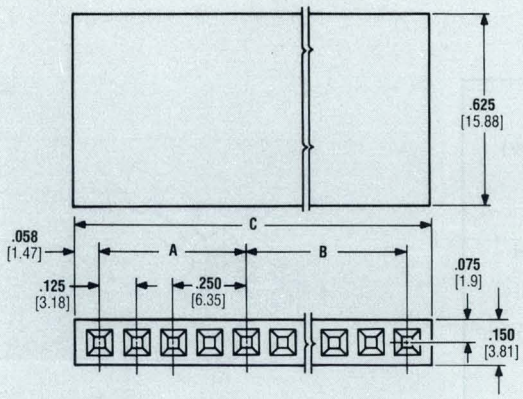
Notes: 1. Post No. 2 is omitted for keying purposes.
2. This header mates with 4-Position Receptacle Housing **No. 86035-1** (shown above).

Mod. III — High Pressure Receptacle Housings to Mate with .025 x .025 [0.64 x 0.64] Posts (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

Single Row Receptacle Housings .125 [3.18] Centers (Standard)

Material: Natural Color Nylon

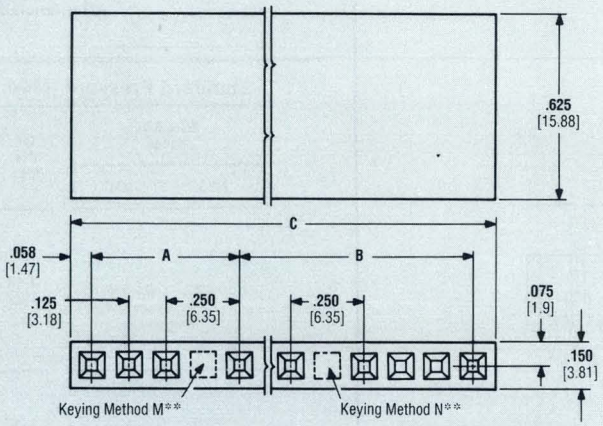


No. of Pos.	Dimensions A	B	C	Housing Part No.*
2	.125 3.18	—	.241 6.12	86471-3
8	.500 12.7	.375 9.53	.991 25.17	86471-4
9	.500 12.7	.500 12.7	1.116 28.35	86471-1
12	.750 19.05	.625 15.88	1.491 37.87	86471-2

*Mod. III wire crimp receptacles can be used in these housings.

Single Row Receptacle Housings .125 [3.18] Centers (Keyed)

Material: Natural Color Nylon



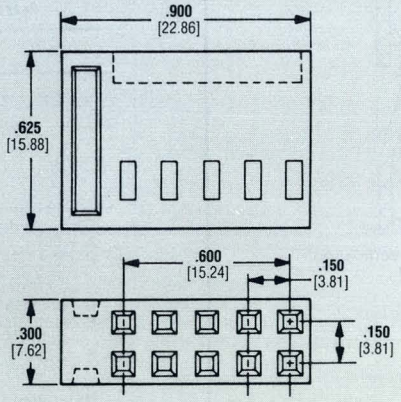
No. of Pos.	Keying Method**	Dimensions A	B	C	Housing Part No.*
9	M	.500 12.7	.500 12.7	1.116 28.35	87019-1
10	M	.500 12.7	.625 15.88	1.241 31.52	87019-3
12	N	.750 19.05	.625 15.88	1.491 37.87	87019-2

*Mod. III wire crimp receptacles can be used in these housings.

**Keying Method M—Fourth cavity from left omitted.
Keying Method N—Fifth cavity from right omitted.

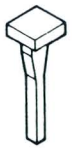
Double Row 10-Position Receptacle Housing .150 [3.81] Centers (Standard)

Material: Natural Color Nylon



Part No. 86100-1

Note: Mod. III wire crimp receptacles can be used in this housing.



Keying Plug
Part No. 86181-1
(Use in Mod. III Contacts)

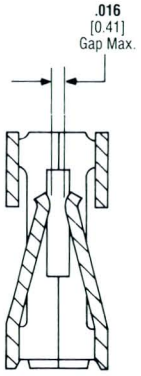
Mod. IV — Crimp Snap-In Contacts

Dimensioning:
1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Charts contain dimensions in inches over millimetres.**

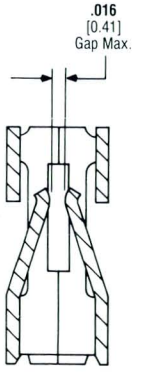
Standard Pressure (Mod. IV), Intermediate Pressure (Mod. IV.v) and High Pressure (Mod. V) Wire Crimp Receptacles

Material:
Standard Pressure, Intermediate Pressure and No Strip—Beryllium Copper
High Pressure—Phosphor Bronze

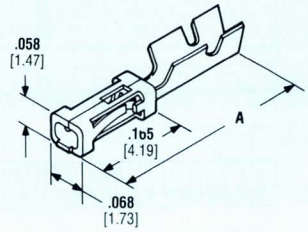
Note: Contacts appearing on pages 68 and 69 are used in all crimp snap-in housings appearing on pages 70 thru 77 and 81 thru 83.



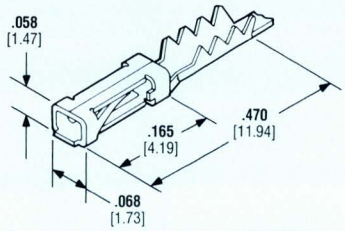
(AMP Product Specification Number 108-9008)



(AMP Product Specification Number 108-9008



Receptacle With Insulation Support



No Strip Receptacle

Standard Pressure (Mod. IV) Wire Crimp Receptacles with Insulation Support

Wire Size Range AWG	Wire Size Range mm²	Ins. Dia. (Max.)	A Dim.	Plating Code	Strip Form Contact Part No. (Reeled for Standard Applicator)	Strip Form Contact Part No. (Reeled for Miniature Applicator)	Loose Piece Part No.
30-26	0.05-0.15	.048 1.22	.445 11.3	A	85967-1	85967-7	86015-1
				B	85967-2	85967-8	86015-2
				C	85967-3	85967-9	86015-3
				D	85967-4	1-85967-0	86015-4
				E	85967-5	85967-6	86015-5
				F	—	1-85967-1	—
26-22	0.12-0.4	.061 1.55	.445 11.3	A	—	87666-1	87667-1
				B	—	87666-2	87667-2
				C	—	87666-3	87667-3
				D	—	87666-4	87667-4
				E	—	87666-5	87667-5
24-20	0.2-0.6	.055 1.4	.470 11.94	A	85969-1	85969-7	86016-1
				B	85969-2	85969-8	86016-2
				C	85969-3	85969-9	86016-3
				D	85969-4	1-85969-0	86016-4
				E	85969-5	85969-6	86016-5

Intermediate Pressure (Mod. IV.v) Wire Crimp Receptacles with Insulation Support

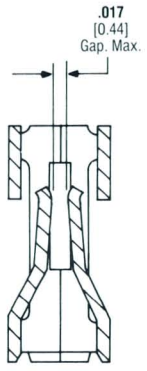
Wire Size Range AWG	Wire Size Range mm²	Ins. Dia. (Max.)	A Dim.	Plating Code	Strip Form Contact Part No. (Reeled for Standard Applicator)	Strip Form Contact Part No. (Reeled for Miniature Applicator)	Loose Piece Part No.
30-26	0.05-0.15	.048 1.22	.445 11.3	E	86491-1	86491-2	87045-1
				A	86491-3	86491-4	87045-2
24-20	0.2-0.6	.055 1.4	.470 11.94	E	86492-1	86492-2	87046-1
				A	86492-3	86492-4	87046-2
				B	86492-5	86492-6	87046-3

Contacts are plated as follows:
A—.000030 [0.00076] gold over .000050 [0.00127] nickel.
B—Gold flash over .000050 [0.00127] nickel on entire receptacle, .000030 [0.00076] gold on contact area.
C—.000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel.
D—.000050 [0.00127] gold over .000050 [0.00127] nickel.
E—Gold flash over .000050 [0.00127] nickel on entire receptacle, .000015 [0.00038] gold on contact area.
F—.000030 [0.00076] gold over .000050 [0.00127] nickel on entire receptacle, .000100 [0.00254] gold on contact area.

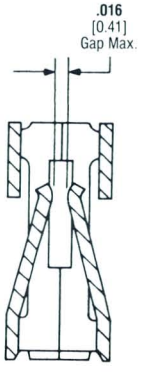
Note: Hand Tool **Part No. 90202-2** is used for crimping loose piece receptacles in wire ranges 30-26 AWG [0.05-0.15 mm²] and 24-20 AWG [0.2-0.6 mm²].
Hand Tool **Part No. 90340-1** is used for crimping loose piece receptacles in wire range 26-22 AWG [0.12-0.4 mm²].

Mod. IV — Crimp
Snap-In Contacts (Cont'd.)

Dimensioning:
1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Charts contain dimensions in inches over millimetres.**



(AMP Product Specification Number 108-25007)



(AMP Product Specification Number 108-9008)

High Pressure (Mod. V) Wire Crimp Receptacles with Insulation Support

Wire Size Range		Ins. Dia. (Max.)	A Dim.	Plating Code	Strip Form Contact Part No.		Loose Piece Part No.
AWG	mm²				(Reeled for Standard Applicator)	(Reeled for Miniature Applicator)	
30-26	0.05-0.15	.048 1.22	.445 11.3	C	87313-2	87313-8	1-87313-3
				B	87313-3	87313-9	1-87313-4
24-20	0.2-0.5	.055 1.4	.470 11.94	C	87309-2	87309-8	1-87309-3
				B	87309-3	87309-9	1-87309-4

Standard Pressure (Mod. IV) Wire Crimp Receptacles, No Strip

Ins. Dia. Range (Max.)	Plating Code	Strip Form Contact Part No.	
		(Reeled for Standard Applicator)	(Reeled for Miniature Applicator)
.055 1.4	A	87107-1	87107-2

Contacts are plated as follows:
A—.000030 [0.00076] gold over .000050 [0.00127] nickel.
B—Gold flash over .000050 [0.00127] nickel on entire receptacle, .000030 [0.00076] gold on contact area.
C—.000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel.
D—.000050 [0.00127] gold over .000050 [0.00127] nickel.
E—Gold flash over .000050 [0.00127] nickel on entire receptacle, .000015 [0.00038] gold on contact area.
F—.000030 [0.00076] gold over .000050 [0.00127] nickel on entire receptacle, .000100 [0.00254] gold on contact area.

Note: Hand Tool **Part No. 90202-2** is used for crimping all loose piece receptacles.

Mod. IV — Connector Housings

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Single Row Connector Housings .100 [2.54] Centers (for Crimp Snap-In Contacts)

Material: Black Glass-Filled Nylon*

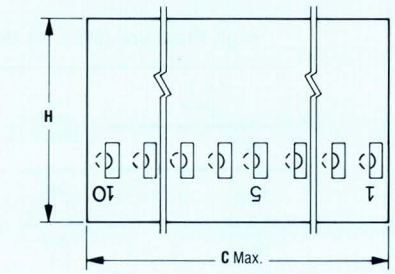
Part No. 87077
Plugs directly into housing

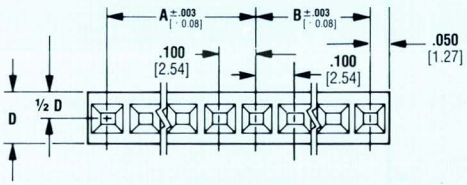
Part No. 86286-1
Plugs into Contact

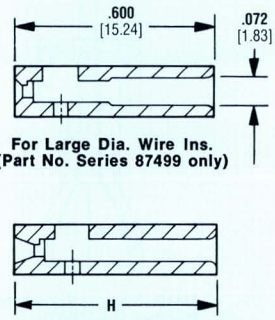
Keying Plugs (for Mod. IV Connectors)

Refer to page 83 for specific application of Keying Plugs.

*Contact AMP Incorporated for specific U.L. recognition.







No. of Pos.	Dimensions A	B	C	D	Housing Part No. H=.645 [16.38]	H=.600 [15.24]
1	—	—	.105 2.67	.140 3.56	—	7-87499-1
2	.100 2.54	—	.200 5.08	.120 3.05	—	—
	.100 2.54	—	.205 5.21	.140 3.56	—	87499-3
3	.100 2.54	.100 2.54	.300 7.62	.120 3.05	—	—
	.100 2.54	.100 2.54	.305 7.75	.140 3.56	1-86427-1	87499-5
4	.200 5.08	.100 2.54	.400 10.16	.120 3.05	—	—
	.200 5.08	.100 2.54	.405 10.29	.140 3.56	1-86427-0	87499-7
5	.200 5.08	.200 5.08	.500 12.7	.120 3.05	—	—
	.200 5.08	.200 5.08	.505 12.83	.140 3.56	86427-7	87499-9
6	.300 7.62	.200 5.08	.600 15.24	.120 3.05	—	—
	.300 7.62	.200 5.08	.605 15.37	.140 3.56	86427-9	1-87499-1
7	.300 7.62	.300 7.62	.700 17.78	.120 3.05	—	—
	.300 7.62	.300 7.62	.705 17.91	.140 3.56	86427-1	87499-1
8	.400 10.16	.300 7.62	.800 20.32	.120 3.05	—	—
	.400 10.16	.300 7.62	.805 20.45	.140 3.56	86427-5	1-87499-3
9	.400 10.16	.400 10.16	.900 22.86	.120 3.05	—	—
	.400 10.16	.400 10.16	.905 22.99	.140 3.56	1-86427-7	1-87499-5
10	.500 12.7	.400 10.16	1.000 25.4	.120 3.05	—	—
	.500 12.7	.400 10.16	1.005 25.53	.140 3.56	86427-2	1-87499-7
11	.500 12.7	.500 12.7	1.100 27.94	.120 3.05	—	—
	.500 12.7	.500 12.7	1.105 28.07	.140 3.56	—	1-87499-9

Mod. IV — Connector Housings (Cont'd.)

Dimensioning:

1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

No. of Pos.	Dimensions				Housing Part No.	
	A	B	C	D	H=.645 [16.38]	H=.600 [15.24]
12	.600 15.24	.500 12.7	1.205 30.61	.140 3.56	1-86427-3	2-87499-1
13	.600 15.24	.600 15.24	1.305 33.15	.140 3.56	—	2-87499-3
14	.700 17.78	.600 15.24	1.405 35.69	.140 3.56	86427-4	2-87499-5
15	.700 17.78	.700 17.78	1.505 38.23	.140 3.56	86427-6	2-87499-7
16	.800 20.32	.700 17.78	1.605 40.77	.140 3.56	1-86427-4	2-87499-9
17	.800 20.32	.800 20.32	1.705 43.31	.140 3.56	—	3-87499-1
18	.900 22.86	.800 20.32	1.805 45.85	.140 3.56	1-86427-2	3-87499-3
19	.900 22.86	.900 22.86	1.905 48.39	.140 3.56	—	3-87499-5
20	1.000 25.4	.900 22.86	2.005 50.93	.140 3.56	86427-3	3-87499-7
21	1.000 25.4	1.000 25.4	2.105 53.47	.140 3.56	—	3-87499-9
22	1.100 27.94	1.000 25.4	2.205 56.01	.140 3.56	—	4-87499-1
23	1.100 27.94	1.100 27.94	2.305 58.55	.140 3.56	—	4-87499-3
24	1.200 30.48	1.100 27.94	2.405 61.09	.140 3.56	2-86427-2	4-87499-5
25	1.200 30.48	1.200 30.48	2.505 63.63	.140 3.56	—	4-87499-7
26	1.300 33.02	1.200 30.48	2.605 66.17	.140 3.56	—	4-87499-9
27	1.300 33.02	1.300 33.02	2.705 68.71	.140 3.56	—	5-87499-1
28	1.400 35.56	1.300 33.02	2.805 71.25	.140 3.56	—	5-87499-3
29	1.400 35.56	1.400 35.56	2.905 73.79	.140 3.56	—	5-87499-5
30	1.500 38.1	1.400 35.56	3.005 76.33	.140 3.56	2-86427-0	5-87499-7
31	1.500 38.1	1.500 38.1	3.105 78.87	.140 3.56	—	5-87499-9
32	1.600 40.64	1.500 38.1	3.205 81.41	.140 3.56	—	6-87499-1
33	1.600 40.64	1.600 40.64	3.305 83.95	.140 3.56	—	6-87499-3
34	1.700 43.18	1.600 40.64	3.405 86.49	.140 3.56	—	6-87499-5
35	1.700 43.18	1.700 43.18	3.505 89.03	.140 3.56	—	6-87499-7
36	1.800 45.72	1.700 43.18	3.605 91.57	.140 3.56	1-86427-5	6-87499-9
41	2.000 50.8	2.000 50.8	4.105 104.27	.140 3.56	87079-1*	—
50	2.500 63.5	2.400 60.96	5.005 127.13	.140 3.56	1-86427-6	—

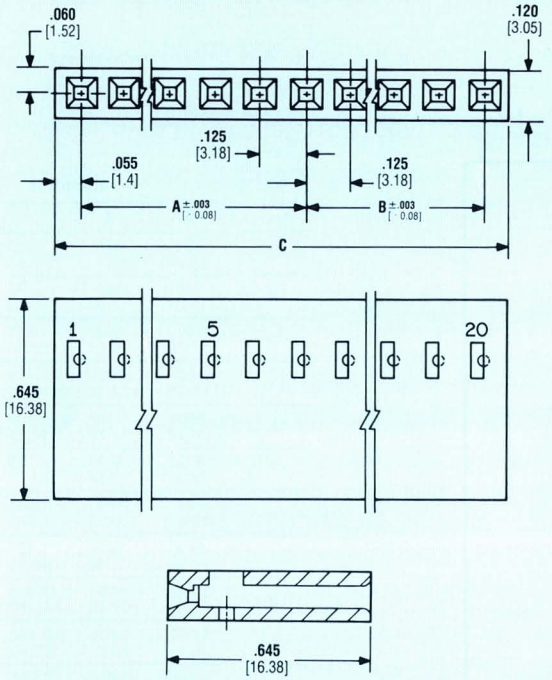
*Cavity identification for all housings, as shown, except:
Housing No. 87079-1 — no cavity identification.

Note: Use **Extraction Tool No. 91052-1** to remove receptacle contacts.

Mod. IV — Connector Housings (Cont'd.)

Single Row Connector Housings .125 [3.18] Centers (for Crimp Snap-In Contacts)

Material: Black Glass-Filled Nylon*

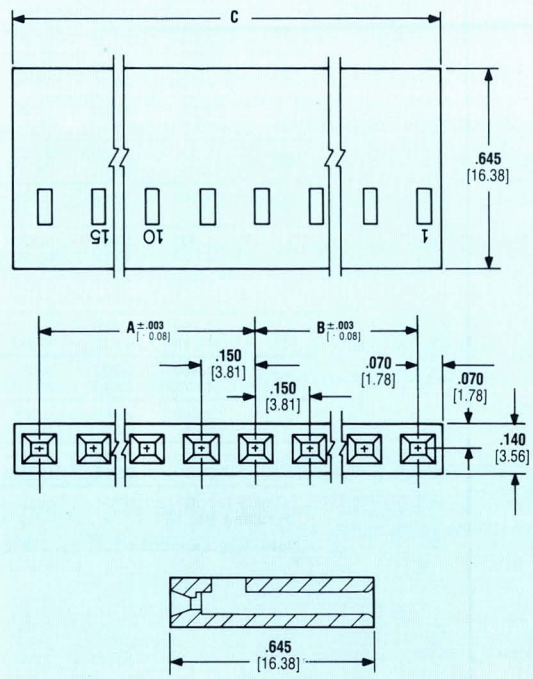


No. of Pos.	Dimensions A	B	C	Housing Part No.
2	—	.125 3.18	.235 5.97	86402-5
3	.125 3.18	.125 3.18	.360 9.14	86402-9
4	.250 6.35	.125 3.18	.485 12.32	86402-2
5	.250 6.35	.250 6.35	.610 15.49	86402-6
6	.375 9.53	.250 6.35	.735 18.67	1-86402-4
8	.500 12.7	.375 9.53	.985 25.02	86402-3
10	.625 15.88	.500 12.7	1.235 31.37	86402-8
12	.750 19.05	.625 15.88	1.485 37.72	86402-4
14	.875 22.23	.750 19.05	1.735 44.07	86402-7
16	1.000 25.4	.875 22.23	1.985 50.42	1-86402-0
17	1.125 28.58	.875 22.23	2.110 53.59	1-86402-1
18	1.125 28.58	1.000 25.4	2.235 56.77	1-86402-2
20	1.250 31.75	1.125 28.58	2.485 63.12	86402-1
24	1.500 38.1	1.375 34.93	2.985 75.82	1-86402-3

Note: Use **Extraction Tool No. 91052-2** to remove receptacle contacts.

Single Row Connector Housings .150 [3.81] Centers (for Crimp Snap-In Contacts)

Material: Black Glass-Filled Nylon*



No. of Pos.	Dimensions A	B	C	Housing Part No.
2	.150 3.81	—	.290 7.37	86459-2
3	.150 3.81	.150 3.81	.440 11.18	86459-3
4	.300 7.62	.150 3.81	.590 14.99	86459-4 87342-2**
5	.300 7.62	.300 7.62	.740 18.8	86459-5
6	.450 11.43	.300 7.62	.890 22.61	86459-6
7	.450 11.43	.450 11.43	1.040 26.42	86459-7
8	.600 15.24	.450 11.43	1.190 30.23	86459-8
10	.750 19.05	.600 15.24	1.490 37.85	1-86459-0
12	.900 22.86	.750 19.05	1.790 45.47	1-86459-2
13	.900 22.86	.900 22.86	1.940 49.28	1-86459-3
14	1.050 26.67	.900 22.86	2.090 53.09	1-86459-4
16	1.200 30.48	1.050 26.67	2.390 60.71	1-86459-6
18	1.350 34.29	1.200 30.48	2.690 68.33	1-86459-1
21	1.500 38.1	1.500 38.1	3.140 79.76	1-86459-5
25	1.800 45.72	1.800 45.72	3.740 95.	1-86459-7

**In this 4-position housing, cavity no. 3 (from right) is omitted for keying purposes.

Note: Use **Extraction Tool No. 91052-1** to remove receptacle contacts.

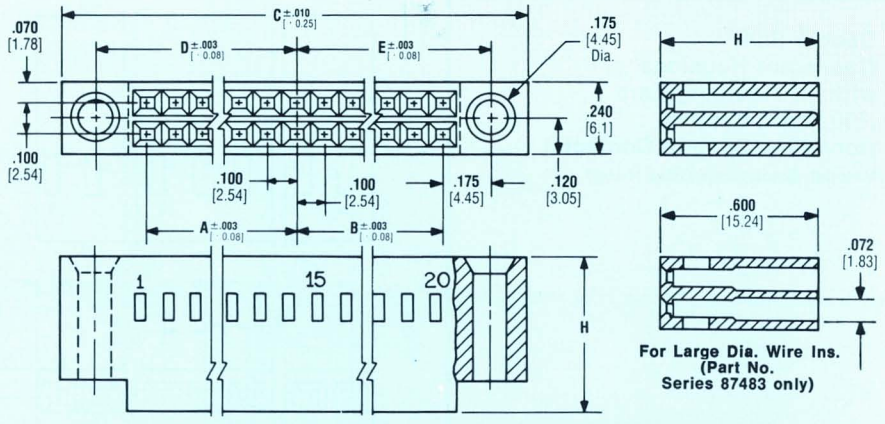
*Contact AMP Incorporated for specific U.L. Recognition.

Mod. IV — Connector Housings (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

Double Row Connector Housings with Mounting Ears .100 [2.54] Centers (for Crimp Snap-In Contacts)

Material: Black Glass-Filled Nylon*

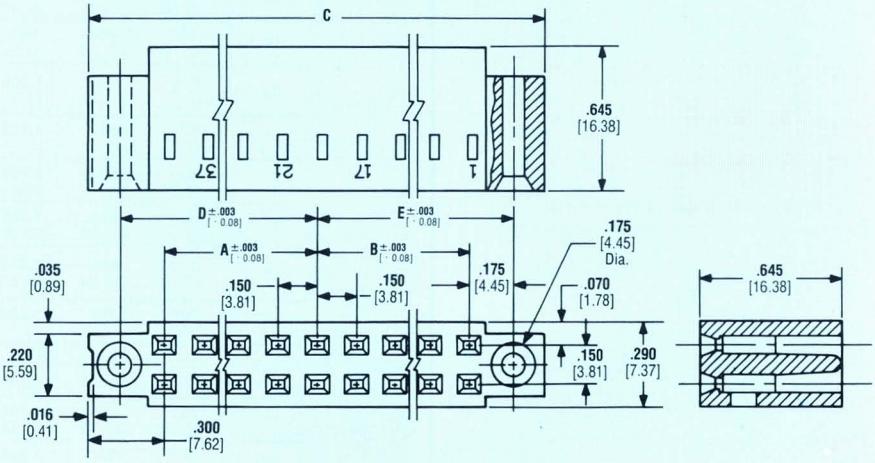


No. of Pos.	Dimensions A	B	C	D	E	Housing Part No. H=.645 [16.38]	H=.600 [15.24]
16	.400 10.16	.300 7.62	1.300 33.02	.575 14.61	.475 12.07	2-86256-2	87483-2
20	.500 12.7	.400 10.16	1.500 38.1	.675 17.15	.575 14.61	2-86256-0	87483-4
26	.600 15.24	.600 15.24	1.800 45.72	.775 19.69	.775 19.69	1-86256-7	87483-6
32	.800 20.32	.700 17.78	2.100 53.34	.975 24.77	.875 22.23	1-86256-4	87483-8
40	1.000 25.4	.900 22.86	2.500 63.5	1.175 29.85	1.075 27.31	1-86256-0	1-87483-0
44	1.100 27.94	1.000 25.4	2.700 68.58	1.275 32.39	1.175 29.85	86256-8	1-87483-2
52	1.300 33.02	1.200 30.48	3.100 78.74	1.475 37.47	1.375 34.93	86256-4	1-87483-4

Note: Use **Extraction Tool No. 91052-1** to remove receptacle contacts.

Double Row Connector Housings with Mounting Ears .150 [3.81] Centers (for Crimp Snap-In Contacts)

Material: Black Glass-Filled Nylon*



No. of Pos.	Dimensions A	B	C	D	E	Housing Part No.
10	.300 7.62	.300 7.62	1.200 30.48	.475 12.07	.475 12.07	87149-6
12	.450 11.43	.300 7.62	1.350 34.29	.625 15.88	.475 12.07	87149-8
16	.600 15.24	.450 11.43	1.650 41.91	.775 19.69	.625 15.88	87149-1
20	.750 19.05	.600 15.24	1.950 49.53	.925 23.5	.775 19.69	87149-2
28	1.050 26.67	.900 22.86	2.550 64.77	1.225 31.12	1.075 27.31	87149-3
32	1.200 30.48	1.050 26.67	2.850 72.39	1.375 34.93	1.225 31.12	87149-4
40	1.500 38.1	1.350 34.29	3.450 87.63	1.675 42.55	1.525 38.74	87149-5
60	2.250 57.15	2.100 53.34	4.950 125.73	2.425 61.6	2.275 57.79	87149-7

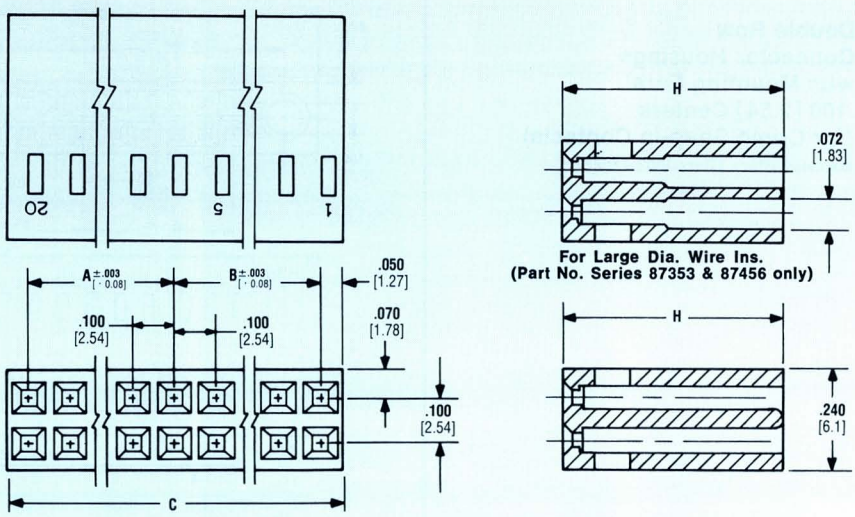
Note: Use **Extraction Tool No. 91052-1** to remove receptacle contacts.

*Contact AMP Incorporated for specific U.L. recognition.

Mod. IV — Connector Housings (Cont'd.)

Double Row
Connector Housings
without Mounting Ears
.100 [2.54] Centers
(for Crimp Snap-In Contacts)

Material: Black Glass-Filled Nylon*



No. of Pos.	Dimensions A	B	C	Housing Part No. H=.645 [16.38]	H=.600 [15.24]	H=.545 [13.84]
6	.100 2.54	.100 2.54	.300 7.62	1-86148-8	87456-2	—
8	.200 5.08	.100 2.54	.400 10.16	2-86148-0	87456-4	—
10	.200 5.08	.200 5.08	.500 12.7	1-86148-2 87353-2	87456-6	87043-1
12	.300 7.62	.200 5.08	.600 15.24	1-86148-3 87353-4	87456-8	—
14	.300 7.62	.300 7.62	.700 17.78	1-86148-4	1-87456-0	—
16	.400 10.16	.300 7.62	.800 20.32	1-86148-5	1-87456-2	—
18	.400 10.16	.400 10.16	.900 22.86	1-86148-6	1-87456-4	—
20	.500 12.7	.400 10.16	1.000 25.4	86148-1 87353-6	1-87456-6	86201-1** 87410-1
22	.500 12.7	.500 12.7	1.100 27.94	86148-2	1-87456-8	—
24	.600 15.24	.500 12.7	1.200 30.48	86148-3	2-87456-0	—
26	.600 15.24	.600 15.24	1.300 33.02	86148-4	2-87456-2	86201-2**
28	.700 17.78	.600 15.24	1.400 35.56	86148-5 87353-8	2-87456-4	—
30	.700 17.78	.700 17.78	1.500 38.1	86148-6	2-87456-6	—
32	.800 20.32	.700 17.78	1.600 40.64	86148-7 1-87353-0	2-87456-8	—
34	.800 20.32	.800 20.32	1.700 43.18	86148-8	3-87456-0	—
36	.900 22.86	.800 20.32	1.800 45.72	86148-9	3-87456-2	—
38	.900 22.86	.900 22.86	1.900 48.26	1-86148-0	3-87456-4	—
40	1.000 25.4	.900 22.86	2.000 50.8	1-86148-1 1-87353-2	3-87456-6	—
42	1.000 25.4	1.000 25.4	2.100 53.34	—	4-87456-4	—
44	1.100 27.94	1.000 25.4	2.200 55.88	1-86148-7	3-87456-8	—
50	1.200 30.48	1.200 30.48	2.500 63.5	2-86148-1	4-87456-0	—
52	1.300 33.02	1.200 30.48	2.600 66.04	1-86148-9	4-87456-2	—
54	1.300 33.02	1.300 33.02	2.700 68.58	—	4-87456-6	—
92	2.300 58.42	2.200 55.88	4.600 116.84	2-86148-2	—	—

**Cavity identification for all housings as shown except:
Housing No. Series 86201 — cavity identification every other cavity (one side).

Note: Use **Extraction Tool No. 91052-1** to remove receptacle contacts.

*Contact AMP Incorporated for specific U.L. recognition.

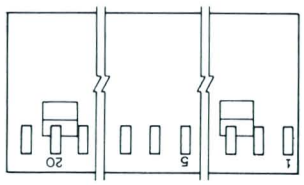
Mod. IV — Connector Housings (Cont'd.)

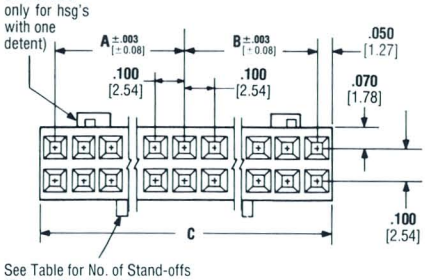
Dimensioning:
1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

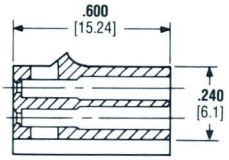
Double Row Connector Housings without Mounting Ears for Detent Latching .100 [2.54] Centers (for Crimp Snap-In Contacts)

Mate with Mod. II Hooded Connectors having .066 [1.68] Dimension from End Post to Inside of Hood

Material: Black Glass-Filled Nylon*





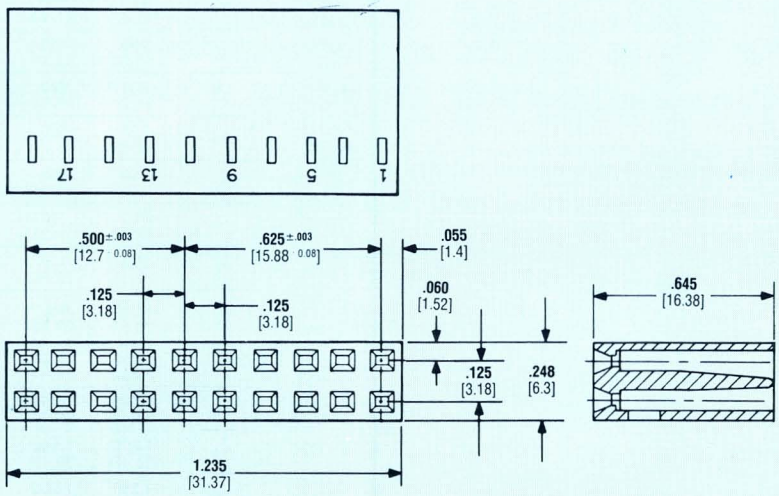


No. of Pos.	Dimensions A	B	C	No. of Detents	No. of Stand-offs	Housing Part No.
6	.100 2.54	.100 2.54	.300 7.62	1	1	87631-2
8	.200 5.08	.100 2.54	.400 10.16	1	1	87631-4
10	.200 5.08	.200 5.08	.500 12.7	1	1	87631-6
12	.300 7.62	.200 5.08	.600 15.24	1	1	87631-8
14	.300 7.62	.300 7.62	.700 17.78	1	1	1-87631-0
16	.400 10.16	.300 7.62	.800 20.32	1	2	1-87631-2
18	.400 10.16	.400 10.16	.900 22.86	1	2	1-87631-4
20	.500 12.7	.400 10.16	1.000 25.4	2	2	1-87631-6
				1	2	4-87631-8
22	.500 12.7	.500 12.7	1.100 27.94	2	2	1-87631-8
				1	2	5-87631-0
24	.600 15.24	.500 12.7	1.200 30.48	2	2	2-87631-0
26	.600 15.24	.600 15.24	1.300 33.02	2	2	2-87631-2
28	.700 17.78	.600 15.24	1.400 35.56	2	2	2-87631-4
30	.700 17.78	.700 17.78	1.500 38.1	2	2	2-87631-6
32	.800 20.32	.700 17.78	1.600 40.64	2	2	2-87631-8
34	.800 20.32	.800 20.32	1.700 43.18	2	2	3-87631-0
36	.900 22.86	.800 20.32	1.800 45.72	2	2	3-87631-2
38	.900 22.86	.900 22.86	1.900 48.26	2	2	3-87631-4
40	1.000 25.4	.900 22.86	2.000 50.8	2	2	3-87631-6
42	1.000 25.4	1.000 25.4	2.100 53.34	2	2	3-87631-8
44	1.100 25.4	1.000 25.4	2.200 55.88	2	2	4-87631-0
50	1.200 30.48	1.200 30.48	2.500 63.5	2	2	4-87631-2
52	1.300 30.48	1.200 30.48	2.600 66.04	2	2	4-87631-4
54	1.300 33.02	1.300 33.02	2.700 68.58	2	2	4-87631-6

Note: Use **Extraction Tool No. 91052-1** to remove receptacle contacts.

Double Row 20-Position Connector Housings without Mounting Ears .125 [3.18] Centers (for Crimp Snap-In Contacts)

Material: Black Glass-Filled Nylon*



Housing Part No. 87657-1

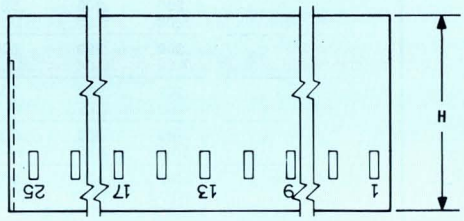
Note: Use **Extraction Tool No. 91052-1** to remove receptacle contacts.

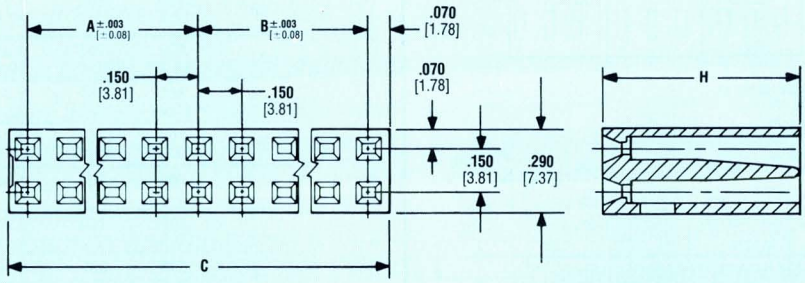
*Contact AMP Incorporated for specific U.L. recognition.

Mod. IV — Connector Housings (Cont'd.)

Double Row
Connector Housings
without Mounting Ears
.150 [3.81] Centers
(for Crimp Snap-In Contacts)

Material: Black Glass-Filled Nylon* or Blue Diallyl Phthalate





No. of Pos.	Dimensions			Nylon Housing Part No.		Diallyl Phthalate Housing Part No.
	A	B	C	H=.645 [16.38]	H=.545 [13.84]	H=.513 [13.03]
4	.150 3.81	—	.290 7.37	87147-1	1-86262-8	—
6	.150 3.81	.150 3.81	.440 11.18	87147-2	1-86262-9	—
8	.300 7.62	.150 3.81	.590 14.99	87147-3	2-86262-0	—
10	.300 7.62	.300 7.62	.740 18.8	87147-4	86262-1	2-86159-2
12	.450 11.43	.300 7.62	.890 22.61	87147-5	86262-2	86216-9
14	.450 11.43	.450 11.43	1.040 26.42	87147-6	86262-3	86216-4
16	.600 15.24	.450 11.43	1.190 30.23	87147-7	86262-4	86216-6
18	.600 15.24	.600 15.24	1.340 34.04	87147-8	86262-5	—
20	.750 19.05	.600 15.24	1.490 37.85	87147-9	86262-6	2-86159-1
22	.750 19.05	.750 19.05	1.640 41.66	1-87147-0	86262-7	2-86159-0
24	.900 22.86	.750 19.05	1.790 45.47	—	—	1-86159-9
26	.900 22.86	.900 22.86	1.940 49.28	—	—	1-86159-8
28	1.050 26.67	.900 22.86	2.090 53.09	1-87147-1	1-86262-0	1-86159-7 86216-3
30	1.050 26.67	1.050 26.67	2.240 56.9	1-87147-2	1-86262-1	1-86159-6
32	1.200 30.48	1.050 26.67	2.390 60.71	1-87147-3	1-86262-2	1-86159-5
34	1.200 30.48	1.200 30.48	2.540 64.52	—	—	1-86159-4
36	1.350 34.29	1.200 30.48	2.690 68.33	—	—	1-86159-3
38	1.350 34.29	1.350 34.29	2.840 72.14	—	—	1-86159-2

*Contact AMP Incorporated for specific U.L. recognition.

Mod. IV — Connector Housings (Cont'd.)

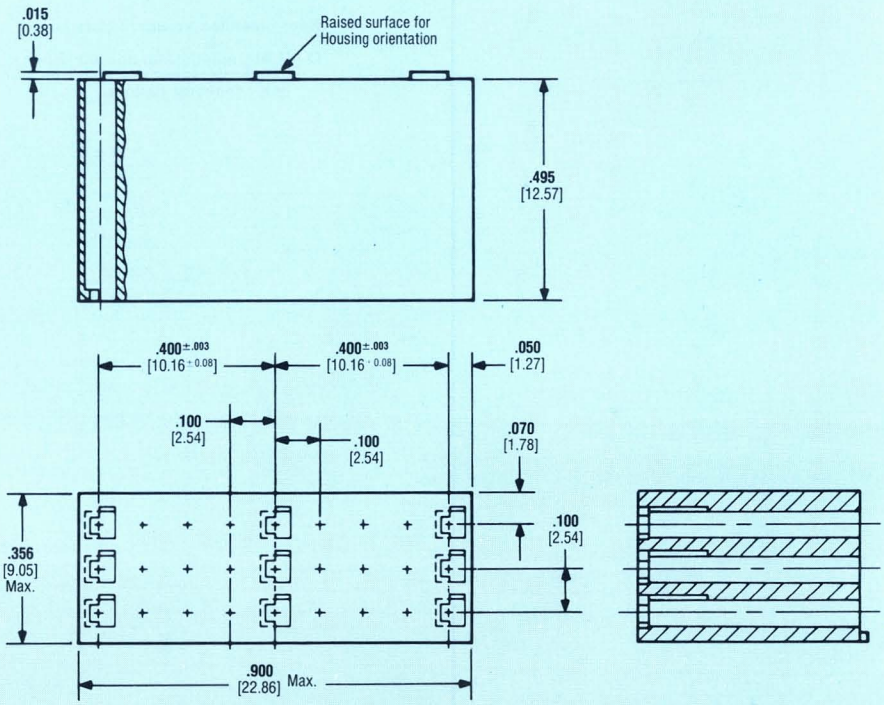
Dimensioning:
1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

Triple Row 27-Position Connector Housing .100 [2.54] Centers (for Crimp Snap-In Contacts)

Material: Black Glass-Filled Nylon*

No. of Pos.	Dimensions			Nylon Housing Part No.		Diallyl Phthalate Housing Part No.
	A	B	C	H=.645 [16.38]	H=.545 [13.84]	H=.513 [13.03]
40	**1.500** 38.1	**1.350** 34.29	**2.990** 75.95	1-87147-4	1-86262-6	1-86159-1 86216-7
42	**1.500** 38.1	**1.500** 38.1	**3.140** 79.76	87347-1	—	1-86159-0
44	**1.650** 41.91	**1.500** 38.1	**3.290** 83.57	—	—	86159-9
46	**1.650** 41.91	**1.650** 41.91	**3.440** 87.38	—	—	86159-8 86216-2
48	**1.800** 45.72	**1.650** 41.91	**3.590** 91.19	—	—	86159-7
50	**1.800** 45.72	**1.800** 45.72	**3.740** 95	—	2-86262-3	86159-6
52	**1.950** 49.53	**1.800** 45.72	**3.890** 98.81	—	—	86159-5
54	**1.950** 49.53	**1.950** 49.53	**4.040** 102.62	—	—	86159-4
56	**2.100** 53.34	**1.950** 49.53	**4.190** 106.43	—	—	86159-3
58	**2.100** 53.34	**2.100** 53.34	**4.340** 110.24	—	—	86159-2
60	**2.250** 57.15	**2.100** 53.34	**4.490** 114.05	—	—	86159-1 86216-8
64	**2.400** 60.96	**2.250** 57.15	**4.790** 121.67	—	2-86262-5	—
84	**3.150** 80.01	**3.000** 76.2	**6.290** 159.77	—	2-86262-4	—
86	**3.150** 80.01	**3.150** 80.01	**6.440** 163.58	—	—	86216-1
90	**3.300** 83.82	**3.300** 83.82	**6.740** 171.2	—	2-86262-2	—

Notes: 1. For **Housing No. Series 86262, 87147 and 87347,** use **Extraction Tool No. 91052-1** to remove receptacle contacts. For **Housing No. Series 86159 and 86216,** use **Extraction Tool No. 91029-1.**
2. Cavity identification for all housings, as shown, except:
Housing No. 87347-1 — no cavity identification.
Housing No. Series 86159 — cavity identification every tenth cavity (both sides).
Housing No. Series 86216 — cavity identification every cavity (both sides).



Housing Part No. 86308-1
Note: Use **Extraction Tool No. 91065-1** to remove receptacle contacts.

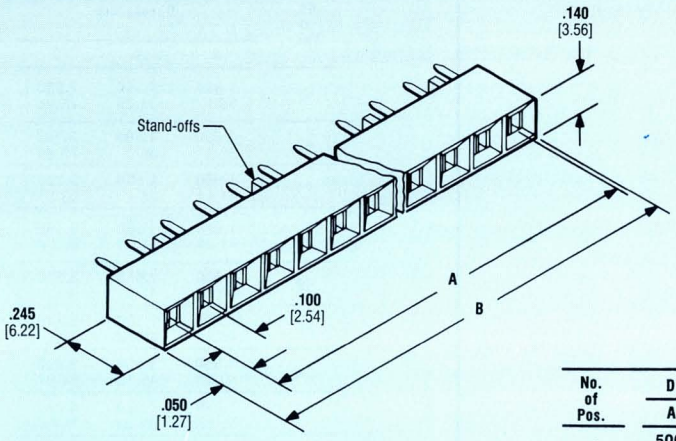
*Contact AMP Incorporated for specific U.L. recognition.

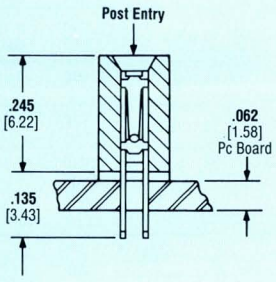
Mod. IV — Connector Assemblies

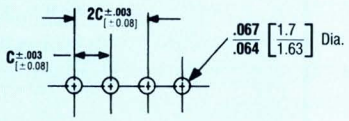
Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Single Row Vertical Mount Connector Assemblies with Stand-offs .100 [2.54] Centers (fully loaded)

Material and Finish:
Housing—Black Glass-Filled Nylon*
Contact—Phosphor Bronze, Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000030 [0.00076] Gold on Contact Area







Recommended Pc Board Hole Layout

C—Post Centerline to be .100 [2.54]; ±.003 [0.08] tolerances not to accumulate within one connector pattern.

No. of Pos.	Dimensions A	Dimensions B	Connector Assembly Part No.
6	.500 12.7	.600 15.24	87334-1
8	.700 17.78	.800 20.32	87334-2
10	.900 22.86	1.000 25.4	87334-3
12	1.100 27.94	1.200 30.48	87334-4
14	1.300 33.02	1.400 35.56	87334-5
16	1.500 38.1	1.600 40.64	87334-6
18	1.700 43.18	1.800 45.72	87334-7
20	1.900 48.26	2.000 50.8	87334-8
22	2.100 53.34	2.200 55.88	87334-9
24	2.300 58.42	2.400 60.96	1-87334-0
26	2.500 63.5	2.600 66.04	1-87334-1
28	2.700 68.58	2.800 71.12	1-87334-2
30	2.900 73.66	3.000 76.2	1-87334-3
32	3.100 78.74	3.200 81.28	1-87334-4
34	3.300 83.82	3.400 86.36	1-87334-5
36	3.500 8.89	3.600 91.44	1-87334-6
38	3.700 93.98	3.800 96.52	1-87334-7
40	3.900 99.06	4.000 101.6	1-87334-8

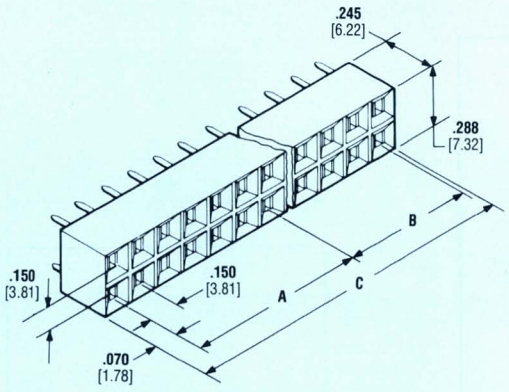
*Contact AMP Incorporated for specific U.L. recognition.

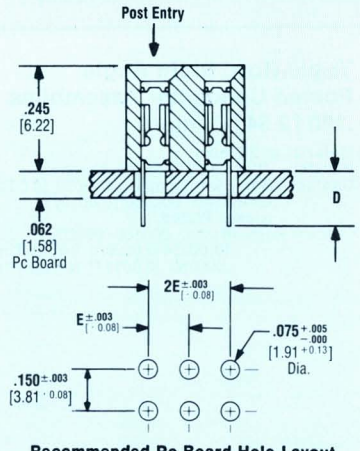
Mod. IV — Connector Assemblies (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Double Row Vertical Mount Connector Assemblies .150 [3.81] Centers (fully loaded)

Material and Finish:
Housing—Blue Diallyl Phthalate
Contact—Phosphor Bronze or Beryllium Copper, .000030 [0.00076] Gold over .000050 [0.00127] Nickel Plated.

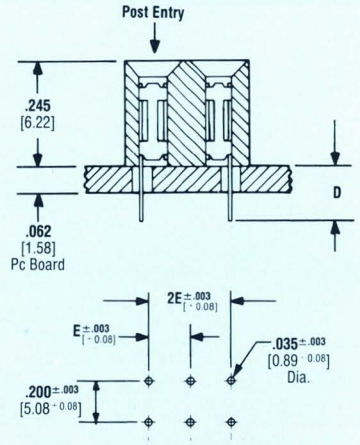




Recommended Pc Board Hole Layout (for post tip clearance thru board)

No. of Pos.	Dimensions A	B	C	D	Connector Assembly Part No.
10	.300 7.62	.300 7.62	.740 18.8	.125 3.18	86396-1
				.175 4.45	87141-1
				.175 4.45	87150-1**
20	.750 19.05	.600 15.24	1.490 37.85	.125 3.18	86396-2
				.175 4.45	87150-2**
30	1.050 26.67	1.050 26.67	2.240 56.9	.125 3.18	86396-3
40	1.500 38.1	1.350 34.29	2.990 75.95	.125 3.18	86396-4
50	1.800 45.72	1.800 45.72	3.740 95	.125 3.18	86396-5
60	2.250 57.15	2.100 53.34	4.490 114.05	.125 3.18	86396-6
70	2.550 64.77	2.550 64.77	5.240 133.1	.125 3.18	86396-7
80	3.000 76.2	2.850 72.39	5.990 152.15	.125 3.18	86396-8
86	3.150 80.01	3.150 80.01	6.440 163.58	.125 3.18	86396-9

**Contacts of these connector assemblies are made of beryllium copper. Contacts of all other connector assemblies are made of phosphor bronze.



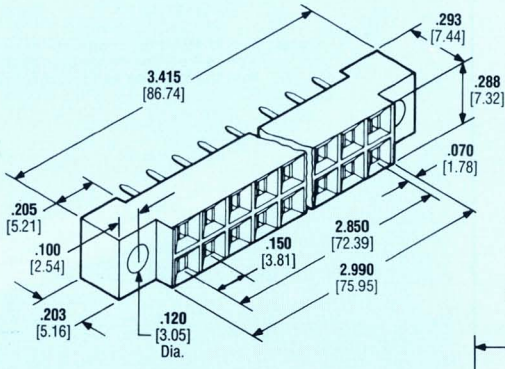
Recommended Pc Board Hole Layout, Alternate (Closed Bottom)

E—Post centerline to be .150 [3.81]; ±.003 [0.08] tolerances not to accumulate within one connector pattern.

Double Row 40-Position Connector Assembly with Mounting Ears .150 [3.81] Centers (fully loaded)

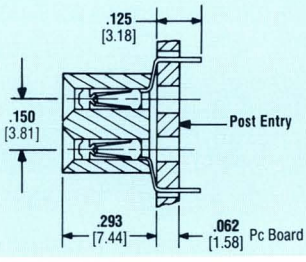
Material and Finish:
Housing—Black Glass-Filled Nylon*
Contact—Phosphor Bronze, Gold Flash over .000050 [0.00127] Nickel on Entire Receptacle, .000030 [0.00076] Gold on Contact Area.

*Contact AMP Incorporated for specific U.L. recognition.

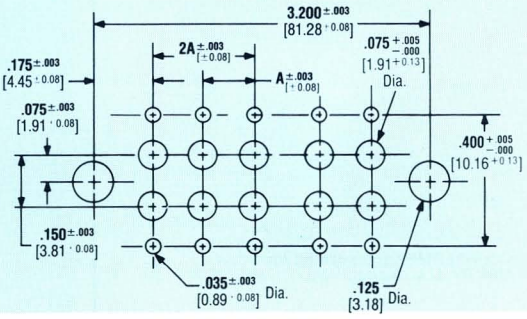


Connector Assembly Part No. 87506-1

A—Post centerline to be .150 [3.81]; ±.003 [0.08] tolerances not to accumulate within one connector pattern.



Recommended Pc Board Hole Layout



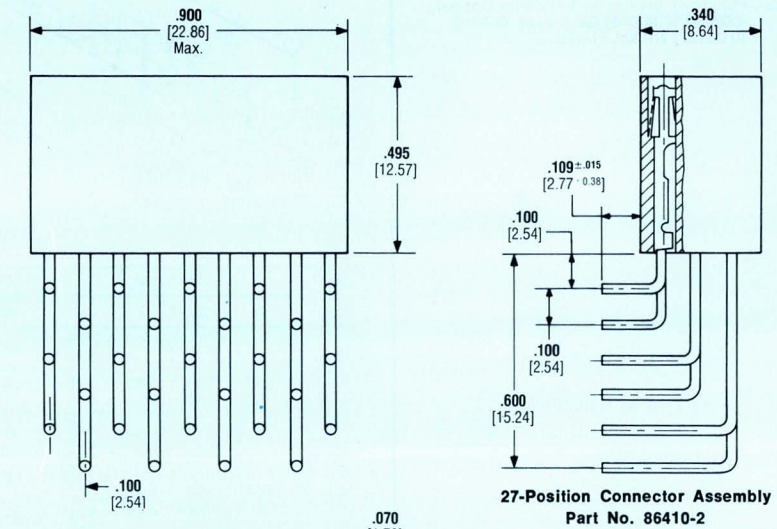
Mod. IV — Connector Assemblies (Cont'd.)

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

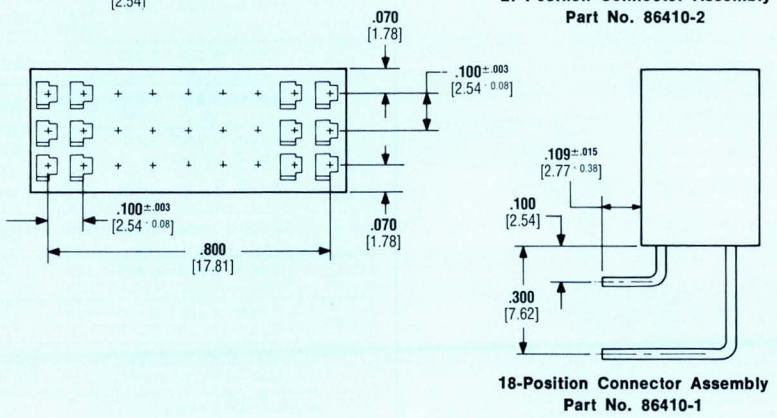
Triple Row, Right Angle Posted Connector Assemblies .100 [2.54] Centers

Material and Finish:
Housing—Black Glass-Filled Nylon*
Contact—Beryllium Copper, .000030 [0.00076] Gold over .000050 [0.00127] Nickel Plated.
Contact Post—Brass, .000100-.000200 [0.00254-0.00508] Bright Tin over .000050 [0.00127] Nickel Plated.

*Contact AMP Incorporated for specific U.L. recognition.



27-Position Connector Assembly
Part No. 86410-2



18-Position Connector Assembly
Part No. 86410-1

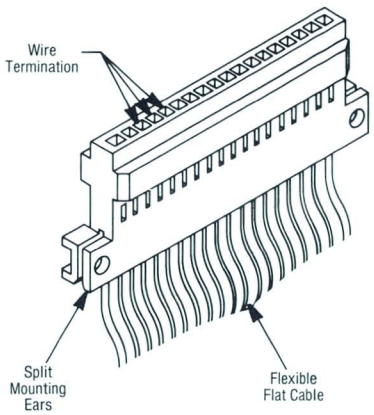
Note: For 27-Position connector assembly **No. 86410-2,** all cavities are loaded. For 18-Position connector assembly **No. 86410-1,** contacts are not loaded into the cavities in the center row.

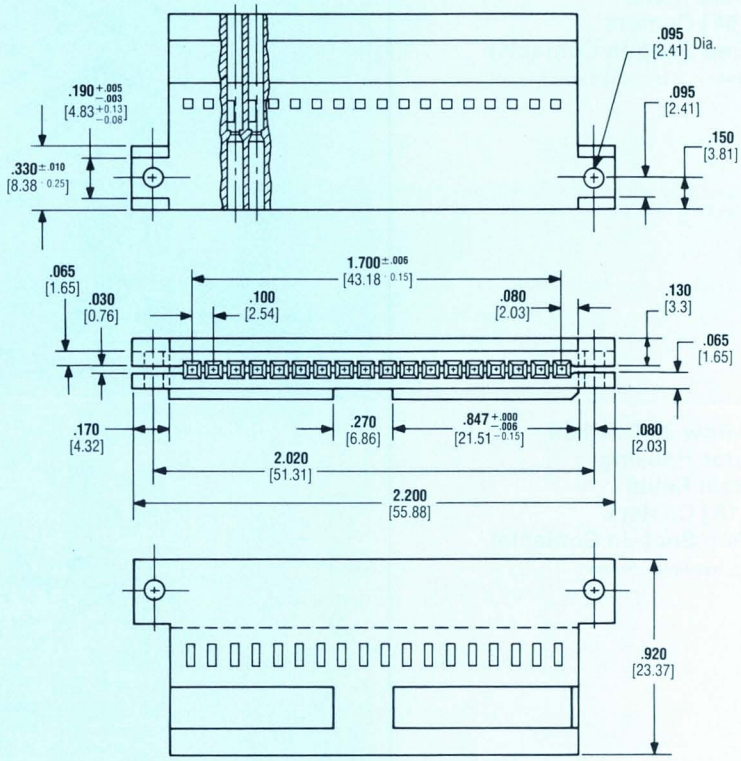
Mod. IV — Special Connector Housings

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

Single Row 18-Position Mod. IV/FFC Connector Housings .100 [2.54] Centers (for Crimp Snap-In Contacts and Flexible Flat Cable terminated with FFC Pin Contacts)

Material: Black Glass-Filled Nylon*





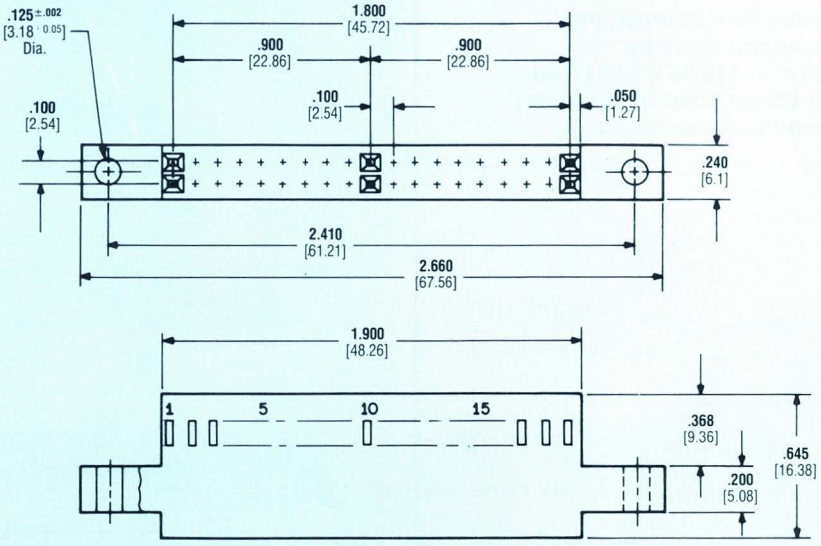
Connector Housing Part No. 87086-1

To use this housing for the transition of round wire to flat cable, proceed as follows:
1. Crimp receptacle contacts onto wire and snap into rear of connector housing.
2. Terminate flexible flat cable with FFC pin contacts, **Part No. 86804-3,** and snap assembled cable into front of connector housing.
3. Squeeze split mounting ears together to provide cable support.

Note: Use **Extraction Tool No. 91052-3** to remove receptacle contacts.

Double Row 38-Position Connector Housing with Special Mounting Ears .100 [2.54] Centers (for Crimp Snap-In Contacts)

Material: Black Glass-Filled Nylon*



Connector Housing Part No. 87274-1
Note: Use **Extraction Tool No. 91052-1** to remove receptacle contacts.

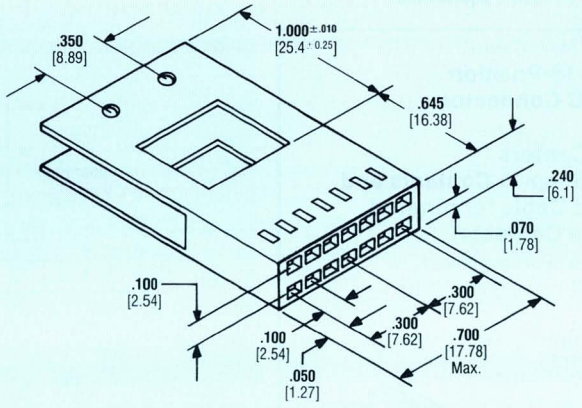
*Contact AMP Incorporated for specific U.L. recognition.

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

Mod. IV — Special Connector Housings (Cont'd.)

Double Row 14-Position Connector Housing with Strain Relief .100 [2.54] Centers (for Crimp Snap-In Contacts)

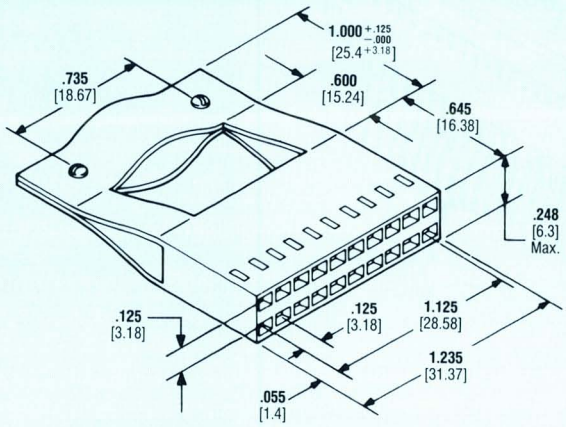
Material: Black Glass-Filled Nylon*



Connector Housing Part No. 87288-1
Note: Use **Extraction Tool No. 91052-1** to remove receptacle contacts.

Double Row 20-Position Connector Housing with Strain Relief .125 [3.18] Centers (for Crimp Snap-In Contacts)

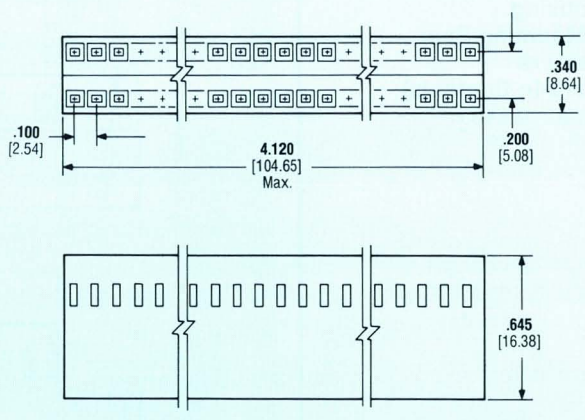
Material: Glass-Filled Nylon*



Connector Housing Part No. 87109-1
Note: Use **Extraction Tool No. 91052-2** to remove receptacle contacts.

Double Row 82-Position Connector Housing .100 x .200 [2.54 x 5.08] Grid (for Crimp Snap-In Contacts)

Material: Black Glass-Filled Nylon*



Connector Housing Part No. 86450-1
Note: Use **Extraction Tool No. 91052-1** to remove receptacle contacts.

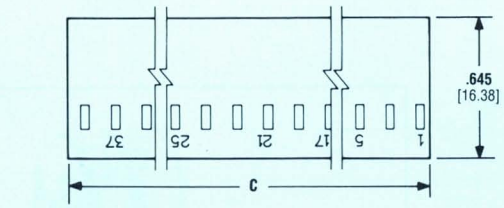
*Contact AMP Incorporated for specific U.L. recognition.

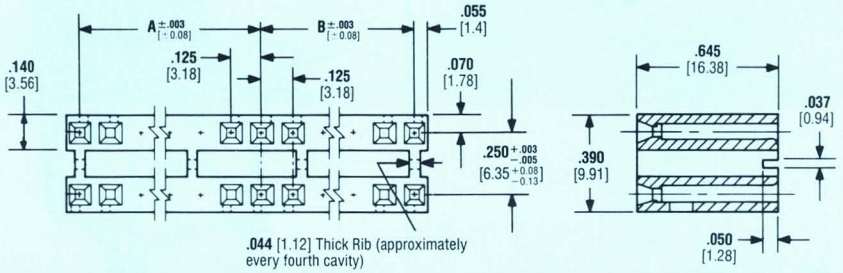
Mod. IV — Special Connector Housings (Cont'd.)

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

Double Row Connector Housings .125 x .250 [3.18 x 6.35] Grid (for Crimp Snap-In Contacts)

Material: Glass-Filled Nylon*



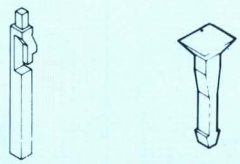


No. of Pos.	Dimensions A	B	C	Housing Part No.
8	.250 6.35	.125 3.18	.485 12.32	87073-1
30	.875 22.23	.875 22.23	1.860 47.24	87073-4
34	1.000 25.4	1.000 25.4	2.110 53.59	87073-5
40	1.250 31.75	1.125 28.58	2.485 63.12	87073-2
56	1.750 44.45	1.625 41.28	3.485 88.52	87073-3

Note: Use **Extraction Tool No. 91052-1** to remove receptacle contacts.

Keying Plugs (for Mod. IV Connectors)

Material: Natural Color Nylon



Part No. 87077
Plugs directly into housing

Part No. 86286-1
Plugs into Contact

Keying Plug No. 87077-1 is for use in deep (.645 [16.38]) housings.
Keying Plug No. 87077-2 is for use in shallow (.600 [15.24] and less) housings.
Keying Plug No. 86286-1 can be used in both deep and shallow housings. However, when used in shallow housings, plug will protrude .040 [1.02] max. from housing.

*Contact AMP Incorporated for specific U.L. recognition.

AMPMODU
Application Tooling

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

Quick Change Miniature Applicator

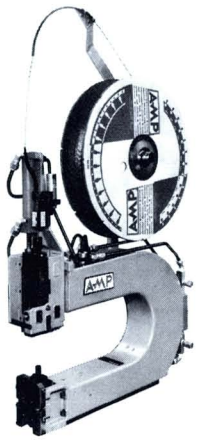
The heart of all AMPMODU application tooling is the AMP Mini-Insertion Applicators which provide efficient, flexible operation for the machines. These highly reliable quick-change applicators can be changed in minutes to facilitate post and receptacle style changeovers with no major interruptions in production. The fact that a change in post size requires no adjustment and that only one simple adjustment is needed for the various board thicknesses further increases the speed and efficiency of the machines.

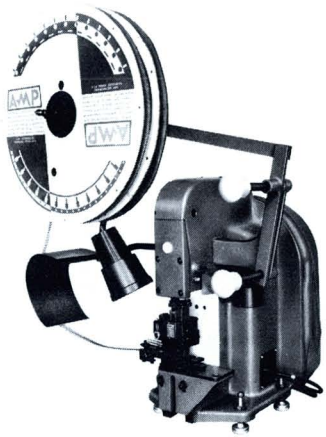
Multihead Pantograph Automatic Staking Machine

AMP's Three-Headed Pantograph Machine is a strip-fed machine which stakes up to 12,000 posts and/or receptacles per hour into three printed circuit boards at a time, with controlled accuracy. And it can handle boards .062″ to .125″ [1.57 mm x 3.18 mm] thick, in 5″ x 13″ [127 mm x 330 mm] to 16″ x 13″ [406 mm x 330 mm] sizes.

AMP-O-MATIC Printed Circuit Board Insertion Machine

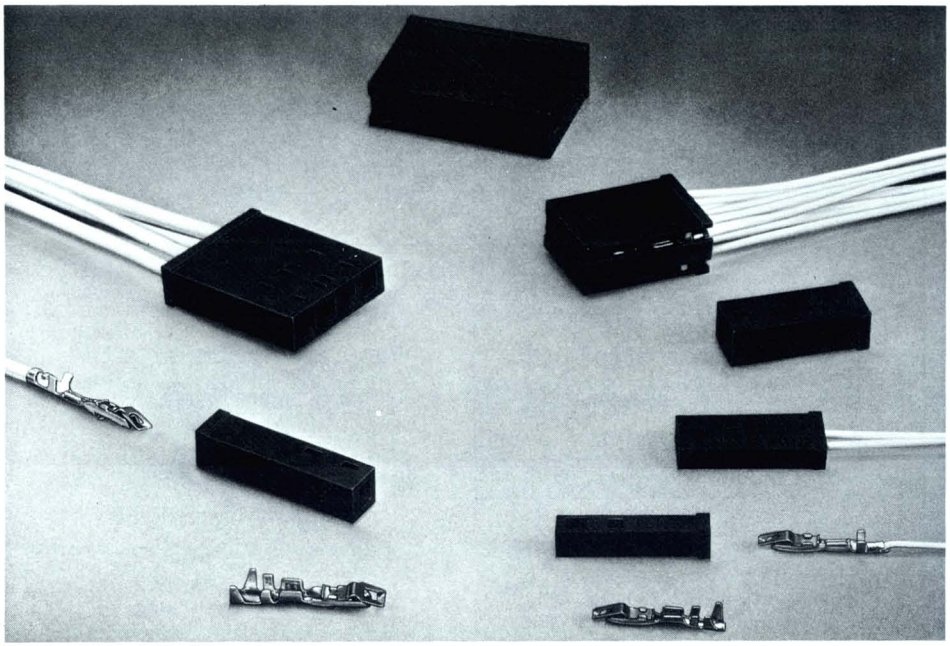
The "U" Press is a pneumatically powered machine and is available in two versions for staking Mod. I (.031″ x .062″ [0.79 mm x 1.57 mm]) and Mod. II (.025″ [0.64 mm] square) posts and all horizontal, vertical and end-feed receptacles. Depending upon operator dexterity, production rates of this semi-automatic machine can be as high as 2000 insertions per hour.





AMP-O-LECTRIC Automatic Terminating Machine

The AMP-O-LECTRIC Press is an all electric machine specifically designed for customer's in-plant production where an air supply is not readily available. This machine offers all of the receptacle staking capabilities of the "U" Press, including the ability to accommodate a range of board thicknesses from .062″ to .125″ [1.57 mm x 3.18 mm].



AMPMODU Locking Clip Connectors

AMPMODU locking clip connectors provide reliable, low cost electrical connections for wire-to-post applications. Designed to mate with .025″ [0.64 mm] sq. and .031″ x .062″ [0.79 mm x 1.57 mm] posts, these connectors offer permanent connection integrity with quick connect/disconnect flexibility. Their self-retaining contacts permit rapid, easy installation, without a need for fastening devices to hold the contacts and/or connector housings in place.

When installed on posts, connectors are positively locked to the posts and cannot be detached by pulling on the wires. To remove a connector, you simply pull on the housing; contact springs deflect within the housing and release the posts. Where contacts are installed directly onto posts, detachment is made with an inexpensive extraction tool. This same tool is used to remove contacts from housings.

Connector housings can be furnished with one or two rows of contact cavities. Single-row housings are available in sizes of 1 thru 15 positions to mate with .025″ [0.64 mm] sq. posts on .100″ [2.54 mm] centers and in sizes of 1 thru 14 positions to mate with .031″ x .062″ [0.79 mm x 1.57 mm] posts on .156″ [3.96 mm] centers. Double-row housings are available in a 2-position size to mate with .025″ [0.64 mm] sq. posts on a .150″ [3.81 mm] grid and in sizes from 2 thru 20 positions to mate with .025″ [0.64 mm] sq. posts on a .100″ [2.54 mm] grid. Also, a choice of housing styles (with closed ends, either side or both sides open) provides flexibility in circuit grouping by allowing side-to-side modular stacking. All connector housings are made of 94V-0 rated glass-filled nylon.

The contacts are constructed of specially selected materials to assure optimum electrical and mechanical performance. A stainless steel contact spring provides lasting high contact-to-post retention, while the tin or gold plated phosphor bronze body assures maximum conductivity and minimum crimp relaxation. All contacts can be terminated with either a precision hand crimping tool or one of AMP's high-speed machines, providing the high volume rates needed to meet harness production requirements.

Performance Requirements

The performance requirements for AMPMODU locking clip connectors and contacts are specified in AMP Product Specification No. 108-25001 for .025″ [0.64 mm] sq. posts, and AMP Product Specification No. 108-25006 for .031″ x .062″ [0.79 mm x 1.57 mm] posts.

Features

- Self-retaining contacts provide permanent connection integrity with quick connect/disconnect flexibility
- Rapid, easy installation; no "hold-down" hardware required
- Provides connections for a variety of wire-to-post applications using .025″ [0.64 mm] sq. posts and .031″ x .062″ [0.79 mm x 1.57 mm] posts
- Various sizes available, from 1 to 20 positions — single- and double-row housings — contacts on .100″ [2.54 mm] grid, .150″ [3.81 mm] grid and .156″ [3.96 mm] centers
- Modular housing configurations permit side-to-side stacking for circuit grouping
- Recognized under the component program of Underwriters' Laboratories, Inc.
- Housings made of 94V-0 rated glass-filled nylon
- Choice of bright tin or gold-over-nickel plated contacts
- Automatic high-speed machine terminations provide maximum reliability and economy of production

Dimensioning:
All dimensions in inches and millimetres. Values in brackets are metric equivalents.

Specifications subject to change. Consult AMP Incorporated for latest design specifications.

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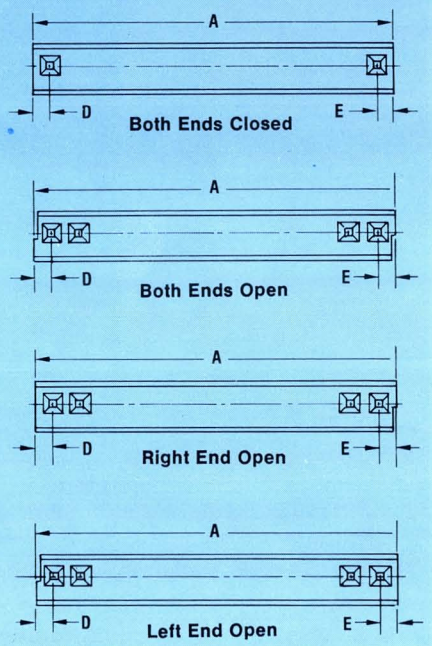
Single-Row Housings
(Mate with .025 [0.64] Sq. Posts)

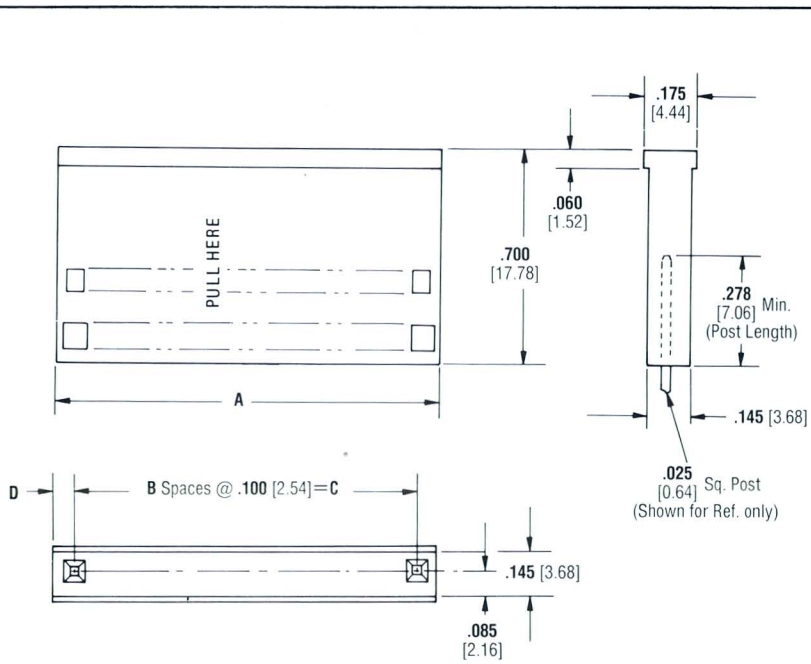
Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

1 thru 15 Positions, .100 [2.54] Centers



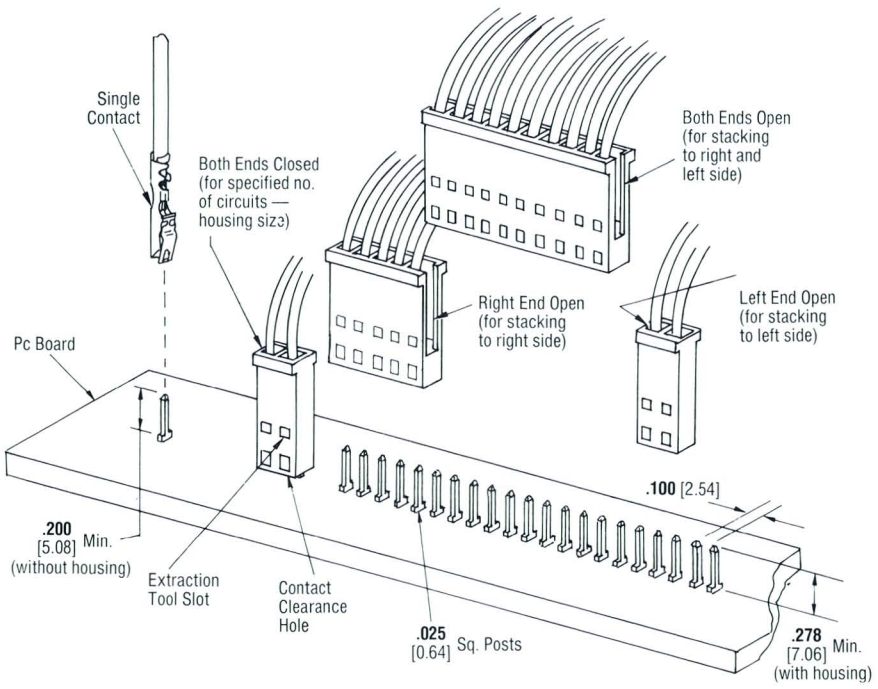
Keying Plug

Material: Natural Color Nylon
Part No. 87179-1 (plugs directly into housings for .025 [0.64] sq. posts)



Note: Housing configuration with both ends closed is shown.
Material: 94V-0 Rated Glass-Filled Nylon

Typical Application



Single-Row Housings
(Mate with .025 [0.64] Sq. Posts)
Continued

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

1 thru 15 Positions, .100 [2.54] Centers (Cont'd.)

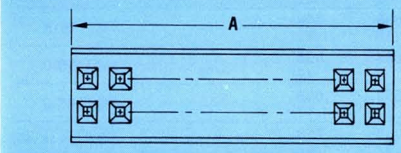
Housing Configuration	No. of Pos.	Dimensions					Housing Part No.	
		A	B	C	D	E	Stamped	Unstamped
Both Ends Closed	1	.108 2.74	0	—	.054 1.37	.054 1.37	—	87175-2
	2	.216 5.49	1	.100 2.54	.058 1.47	.058 1.47	—	87175-6
	3	.316 8.03	2	.200 5.08	.058 1.47	.058 1.47	—	87175-8
	4	.416 10.57	3	.300 7.62	.058 1.47	.058 1.47	—	1-87175-0
	5	.516 13.11	4	.400 10.16	.058 1.47	.058 1.47	—	1-87175-2
	6	.616 15.65	5	.500 12.7	.058 1.47	.058 1.47	1-87175-3	1-87175-4
	7	.716 18.19	6	.600 15.24	.058 1.47	.058 1.47	1-87175-5	1-87175-6
	8	.816 20.73	7	.700 17.78	.058 1.47	.058 1.47	1-87175-7	1-87175-8
	9	.916 23.27	8	.800 20.32	.058 1.47	.058 1.47	1-87175-9	2-87175-0
	10	1.016 25.81	9	.900 22.86	.058 1.47	.058 1.47	2-87175-1	2-87175-2
	11	1.116 28.35	10	1.000 25.4	.058 1.47	.058 1.47	2-87175-3	2-87175-4
	12	1.216 30.89	11	1.100 27.94	.058 1.47	.058 1.47	2-87175-5	2-87175-6
	13	1.316 33.43	12	1.200 30.48	.058 1.47	.058 1.47	2-87175-7	2-87175-8
	14	1.416 35.97	13	1.300 33.02	.058 1.47	.058 1.47	2-87175-9	3-87175-0
	15	1.516 38.51	14	1.400 35.56	.058 1.47	.058 1.47	87175-3	87175-4
Both Ends Open	10	1.012 25.7	9	.900 22.86	.056 1.42	.056 1.42	1-87318-9	—
	11	1.112 28.24	10	1.000 25.4	.056 1.42	.056 1.42	2-87318-1	—
	12	1.212 30.78	11	1.100 27.94	.056 1.42	.056 1.42	2-87318-3	—
Right End Open	8	.814 20.68	7	.700 17.78	.058 1.47	.056 1.42	1-87319-5	—
	9	.914 23.22	8	.800 20.32	.058 1.47	.056 1.42	1-87319-7	—
	10	1.014 25.76	9	.900 22.86	.058 1.47	.056 1.42	1-87319-9	—
	11	1.114 28.3	10	1.000 25.4	.058 1.47	.056 1.42	2-87319-1	—
	12	1.214 30.84	11	1.100 27.94	.058 1.47	.056 1.42	2-87319-3	—
	13	1.314 33.38	12	1.200 30.48	.058 1.47	.056 1.42	2-87319-5	—
	14	1.414 35.92	13	1.300 33.02	.058 1.47	.056 1.42	2-87319-7	—
Left End Open	8	.814 20.68	7	.700 17.78	.056 1.42	.058 1.47	1-87320-5	—
	9	.914 23.22	8	.800 20.32	.056 1.42	.058 1.47	1-87320-7	—
	10	1.014 25.76	9	.900 22.86	.056 1.42	.058 1.47	1-87320-9	—
	11	1.114 28.3	10	1.000 25.4	.056 1.42	.058 1.47	2-87320-1	—
	12	1.214 30.84	11	1.100 27.94	.056 1.42	.058 1.47	2-87320-3	—
	13	1.314 33.38	12	1.200 30.48	.056 1.42	.058 1.47	2-87320-5	—
	14	1.414 35.92	13	1.300 33.02	.056 1.42	.058 1.47	2-87320-7	—

Note: All housings listed above will accept **Contact No. Series 87124, 87165, 87190 and 87191.**
See contact specifications on back page.

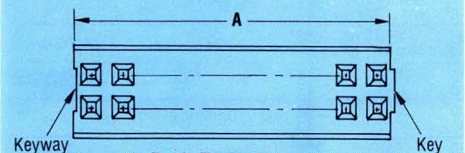
Double-Row Housings
(Mate with .025 [0.64] Sq. Posts)

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

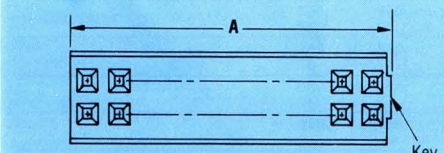
2, 4, 6, 10 & 20 Positions, .100 [2.54] Grid



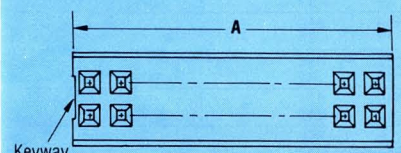
Both Ends Closed



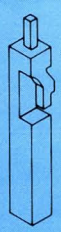
Both Ends Open



Right End Open

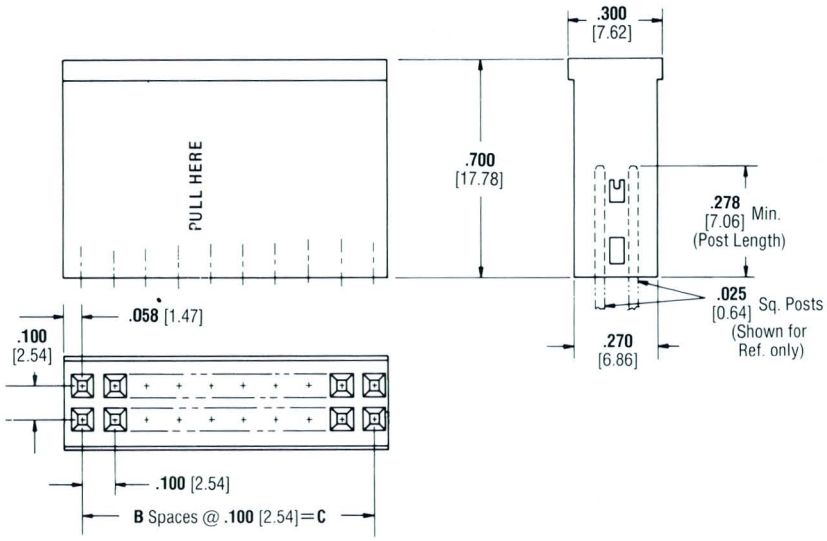


Left End Open



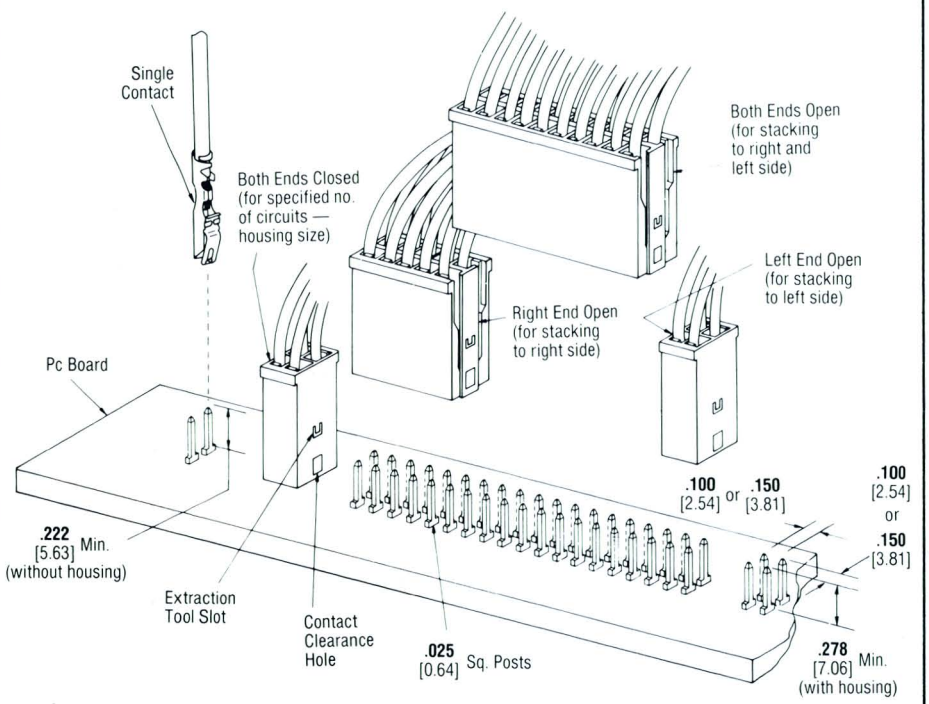
Keying Plug

Material: Natural Color Nylon
Part No. 87179-1 (plugs directly into housings for .025 [0.64] sq. posts)



Note: Housing configuration with both ends closed is shown.
Material: 94V-0 Rated Glass-Filled Nylon

Typical Application



Double-Row Housings
(Mate with .025 [0.64] Sq. Posts)
Continued

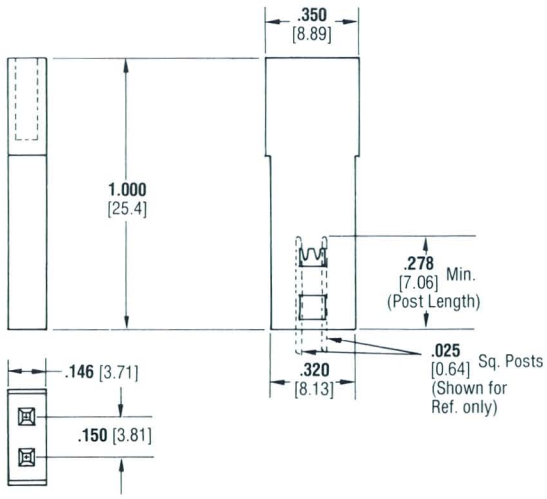
Dimensioning:
1. **All dimensions in inches and millimetres. Values in brackets are metric equivalents.**
2. **Chart contains dimensions in inches over millimetres.**

2, 4, 6, 10 & 20 Positions, .100 [2.54] Grid (Cont'd.)

Housing Configuration	No. of Pos.	Dimensions A	B	C	Housing Part No. Stamped	Unstamped
Both Ends Closed	2	**.116** 2.95	0	—	—	87176-1
	4	**.216** 5.49	1	**.100** 2.54	—	87133-1
	6	**.316** 8.03	2	**.200** 5.08	87133-8	87133-7
	10	**.516** 13.11	4	**.400** 10.16	87133-5	87133-2
	20	**1.016** 25.81	9	**.900** 22.86	87133-6	87133-3
Both Ends Open	4	**.199** 5.05	1	**.100** 2.54	—	87125-1
	10	**.499** 12.67	4	**.400** 10.16	87125-5	87125-2
	20	**.999** 25.37	9	**.900** 22.86	87125-6	87125-3
Right End Open	4	**.216** 5.49	1	**.100** 2.54	—	87132-1
	10	**.516** 13.11	4	**.400** 10.16	87132-5	87132-2
	20	**1.016** 25.81	9	**.900** 22.86	87132-6	87132-3
Left End Open	4	**.216** 5.49	1	**.100** 2.54	—	87131-1
	10	**.516** 13.11	4	**.400** 10.16	87131-5	87131-2
	20	**1.016** 25.81	9	**.900** 22.86	87131-6	87131-3

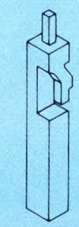
Note: All housings listed above will accept **Contact No. Series 87124, 87165, 87190 and 87191.** See contact specifications on back page.

2 Position, .150 [3.81] Centers



Material: 94V-0 Rated Glass-Filled Nylon
Part No. 87315-2

Note: This housing will accept **Contact No. Series 87124, 87165, 87190 and 87191.** See contact specifications on back page.



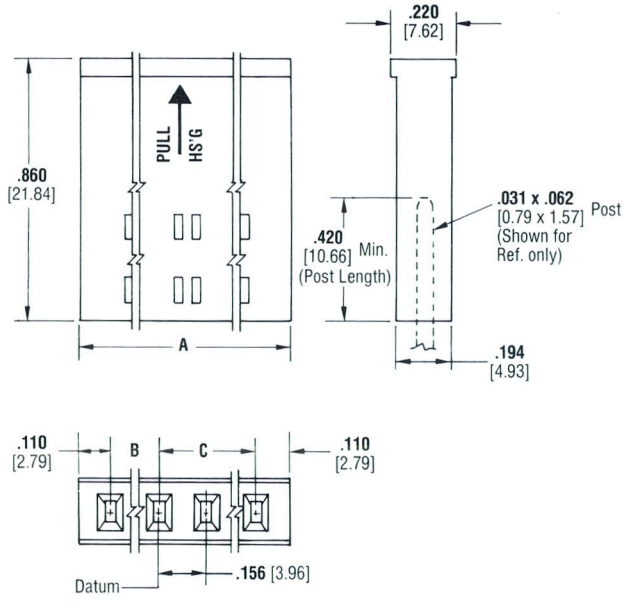
Keying Plug

Material: Natural Color Nylon
Part No. 87179-1 (plugs directly into housings for .025 [0.64] sq. posts)

Single-Row Housings (Mate with .031 x .062 [0.79 x 1.57] Posts)

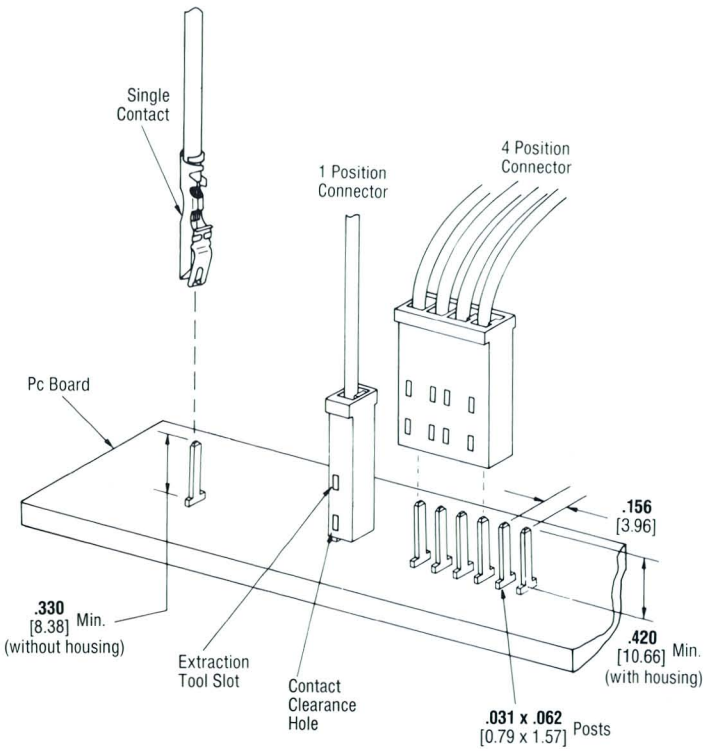
Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.

1 thru 14 Positions, .156 [3.96] Centers



Material: 94V-0 Rated Glass-Filled Nylon

Typical Application



Single-Row Housings (Mate with .031 x .062 [0.79 x 1.57] Posts) Continued

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Chart contains dimensions in inches over millimetres.

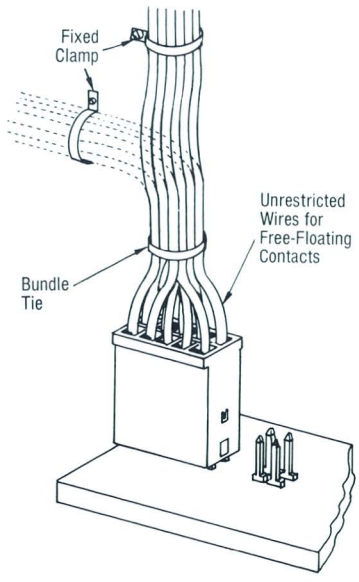
1 thru 14 Positions, .156 [3.96] Centers (Cont'd.)

No. of Pos.	Dimensions A	B	C	Housing Part No.	Cavity Identification from Datum (□)
1	.200 5.08	—	—	87270-1	□
2	.376 9.55	—	—	87270-2	□□
3	.532 13.51	.156 3.96	.156 3.96	1-87270-3	□□□
4	.688 17.48	.156 3.96	.312 7.92	87270-4	□□□□
5	.844 21.44	.312 7.92	.312 7.92	1-87270-4	□□□□□
6	1.000 25.4	.312 7.92	.468 11.89	87270-5	□□□□□□
7	1.156 29.36	.468 11.89	.468 11.89	1-87270-5	□□□□□□□
8	1.312 33.32	.468 11.89	.624 15.85	87270-6	□□□□□□□□
9	1.468 37.29	.624 15.85	.624 15.85	1-87270-6	□□□□□□□□□
10	1.624 41.25	.624 15.85	.780 19.81	87270-7	□□□□□□□□□□
11	1.780 45.21	.780 19.81	.780 19.81	1-87270-7	□□□□□□□□□□□
12	1.936 49.17	.780 19.81	.936 23.77	87270-8	□□□□□□□□□□□□
13	2.092 53.14	.936 23.77	.936 23.77	1-87270-8	□□□□□□□□□□□□□
14	2.248 57.1	.936 23.77	1.092 27.74	87270-9	□□□□□□□□□□□□□□

Notes: 1. All housings listed above will accept **Contact No. Series 87269 and 87278.** See contact specifications on back page.
2. Other housing sizes and keyed housings are available upon request. For more information, contact AMP Incorporated.

Wire Harnessing

If necessary, wires can be bundled together with bundle ties and secured to a panel with fixed clamps. However, it should be noted that the locking clip contacts must remain free to float within the connector housings to ensure proper extraction. Therefore, the use of such harnessing hardware or the use of multiple terminations per contact must not restrict the free-floating action of the contacts in the housing.

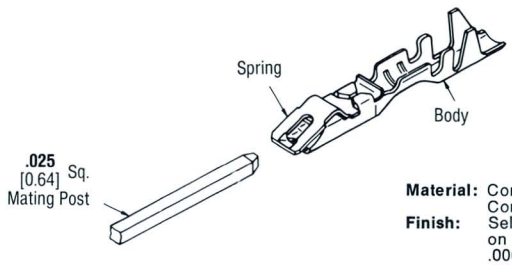


Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

AMPMODU
Locking Clip Contacts

Contacts for .025 [0.64] Sq. Posts

Extraction Tool No. 91084-1



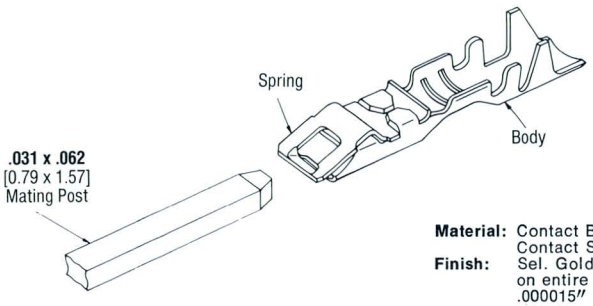
Material: Contact Body—Phosphor Bronze
Contact Spring—Stainless Steel
Finish: Sel. Gold/Nickel—Gold flash over nickel on entire contact with additional .000030″ [0.00076 mm] gold on contact area
Tin—.000100″ [0.00254 mm] min. bright tin

Wire Size Range AWG	Wire Size Range mm²	Ins. Dia. Range	Finish	Contact Part No. Strip Form	Contact Part No. Loose Piece	Hand Crimping Tool No.
30-28	0.05-0.09	**.029-.039** 0.74-0.99	Sel. Gold/Nickel	87190-1	87191-1	90295-1
			Tin	87190-2	87191-2	
26-22	0.12-0.4	**.038-.062** 0.97-1.58	Sel. Gold/Nickel	87124-1	87165-1	90289-1
			Tin	87124-2	87165-2	

Extraction Tool No. 91084-1 is used for removing individual contacts from connector housings and for detaching contacts from mating posts.

Contacts for .031 x .062 [0.79 x 1.57] Posts

Extraction Tool No. 91104-1



Material: Contact Body—Phosphor Bronze
Contact Spring—Stainless Steel
Finish: Sel. Gold/Nickel—Gold flash over nickel on entire contact with additional .000015″ [0.00038 mm] gold on contact area
Tin—.000100″ [0.00254 mm] min. bright tin

Wire Size Range AWG	Wire Size Range mm²	Ins. Dia. Range	Finish	Contact Part No. Strip Form	Contact Part No. Loose Piece	Hand Crimping Tool No.
22-18	0.3-0.9	**.050-.100** 1.27-2.54	Sel. Gold/Nickel	87269-2	87278-2	90308-1
			Tin	87269-1	87278-1	

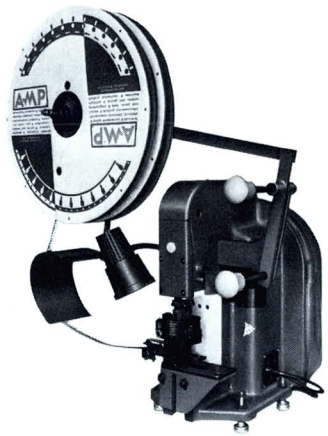
Note: These contacts must be crimped in accordance with AMP Specification No. 114-25008 in order to function properly in a connector housing.
Extraction Tool No. 91104-1 is used for removing individual contacts from connector housings and for detaching contacts from mating posts.

Application Tooling

AMP has available a full line of application tooling, ranging from hand crimping tools to semi-automatic and automatic machines. Choice of the proper tooling for your production needs is an important factor in determining your overall cost savings. Consult AMP Incorporated for the right tooling for your application.

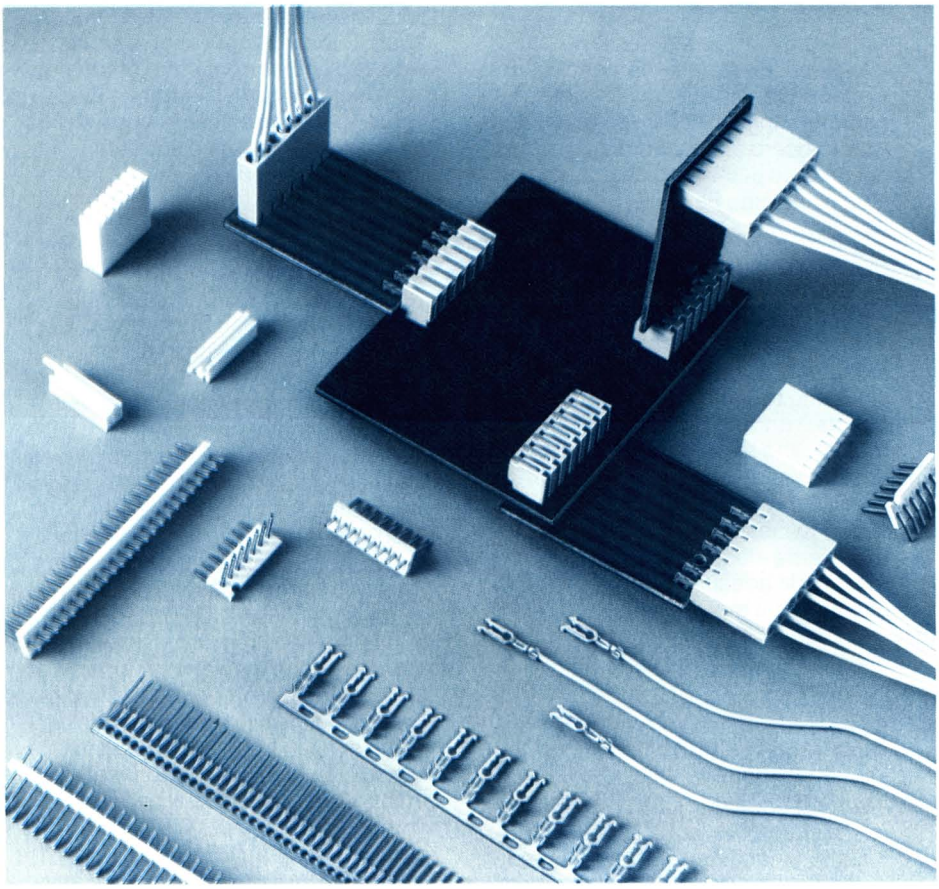
CERTI-CRIMP Hand Tool

Single Nest (for contacts to mate with .025 [0.64] sq. posts)
Dual Nest (for contacts to mate with .031 x .062 [0.79 x 1.57] posts)



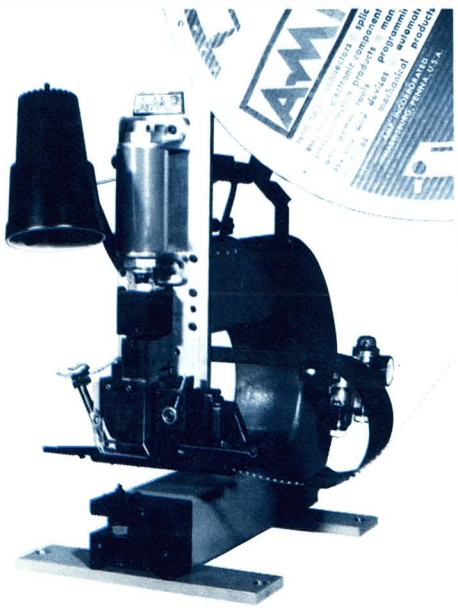
AMP-O-LECTRIC Machine

Interconnection Packaging Devices and Accessories



Post Insertion Tooling

This post insertion press assembly installs straight posts into pc boards containing drilled or punched holes. It is pneumatically controlled and operated and can insert posts into .062" x .125" thick boards with holes on a grid of .100" centers and larger. Its production speed is 1,200 to 3,000 posts an hour, depending upon operator dexterity. For higher production, however, two or three insertion heads can be installed on a pantograph table to achieve multiple insertion.



Post Insertion Tooling

Commercial Interconnection System

Redundant Metal-to-Metal Contact

Note: Does not rely on housing material for contact force.

Features

- High reliability
- Two piece interconnection system
- High pressure fork-type female contacts (normal force exceeds 1000 grams)
- Low cost, tin-plated system
- Extreme versatility allowing for electronic packaging flexibility
- Contact spacings .100" and .150" centerline, single row
- Posts available for machine application, gang insertion via zip strip and/or pin headers
- Application cost savings through product design and application tooling
- Recognized under the Components Recognition Program of Underwriters' Laboratories, Inc., File No. E-28476

Dimensioning:
All dimensions in inches.

Specifications subject to change. Consult AMP Incorporated for latest design specifications.

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Performance Capabilities

- Termination Resistance — 5.0 milliohms maximum
- Insulation Resistance — 1000 megohms at 500 VDC
- Dielectric Withstanding Voltage, MIL-STD-202, Method 301 — No breakdown at 1000 VDC
- Temperature Cycling, MIL-STD-202 Method 102, Condition D — −55°C and 85°C — no physical damage. Termination resistance 5 milliohms max.
- Humidity, 96 hours at 40°C — 90-95% RH — Insulation resistance 1000 megohms. Dielectric withstanding voltage 250V.
- Corrosion, MIL-STD-202, Method 101, 96 hours at 5% salt solution— Termination resistance 5.0 milliohms max.
- Vibration, MIL-STD-202, Method 201, 10-55-10 CPS — No discontinuity greater than 10 microseconds. Termination resistance 5.0 milliohms max.
- Temperature Rise, rated at 40°F or 44.4°C rise — 3 amperes multi-circuits.

The AMP Commercial Interconnection System features a redundant metal-to-metal high pressure contact assuring positive electrical integrity for signal level applications. Significant cost savings can be accrued by the use of this low cost, two-piece, tin-plated interconnection system. The wide variety of tooled configurations for board-to-board and wire-to-board applications offers the electronics packaging designer low cost packaging flexibility.

The AMP Commercial Interconnection System consists of a connector housing with specially designed cavities to support and protect the fork-type female contacts. These receptacle assemblies are ready for soldering to mother or daughter boards without special assembly tooling. The mating half consists of a post designed to provide sufficient contact travel to insure positive wiping action to clean the contact surfaces and assure electrical continuity. The receptacle housing features a lead-in chamfer that provides proper alignment of the mating post prior to engagement with the receptacle contact.

Posts are supplied straight or right angle either mounted on plastic carrier strip form for high speed gang insertion on .100" or .150" centers or in strip form for machine insertion. Insertion machine application is particularly valuable for applications requiring staggered or random post location. Pin headers are also available with or without polarization features. Regardless of which post you select, the insertion method yields low application cost.

Preassembled receptacle assemblies are available on .100" or .150" centerline contact spacing and are made of U.L. approved 94V-0 flame retardant material. Contacts are brass with bright tin over copper plating and provide excellent solderability. This versatile interconnection system for board-to-board application permits side, top and bottom entry of the post into the receptacle assembly. This enables you to achieve a high level of flexibility in systems electronic packaging design.

The crimp snap-in receptacle assemblies for wire-to-board application provide horizontal or vertical entry to the printed circuit board, anywhere on the board. By design, the harness assemblies discipline discrete wiring to the board, insures reliability by their two-piece redundant metal-to-metal interconnection design, and provides positive wipe action insuring electrical continuity. A high force contact, 350090-1, is available for applications requiring maximum retention of the specified harness assembly. A lower force contact, 640230-1, is available for applications requiring smaller wire sizes featuring insulation support and for assemblies of 12 or more circuits. Both contacts will function in all the crimp snap-in housings shown in this catalog. AMP miniature applicators utilized in conjunction with semi-automatic AMP-O-LECTRIC machines or fully automatic SELM or AMPOMATOR machines insure low applied cost harnessing.

The Commercial Interconnection System offers performance capabilities and features which yield you a low cost, reliable two-piece interconnection system with packaging flexibility demanded in today's electronic packaging systems.

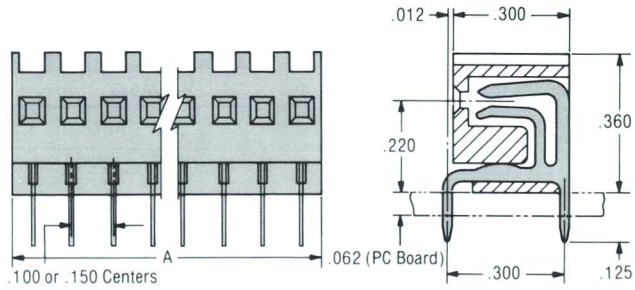
Side Entry

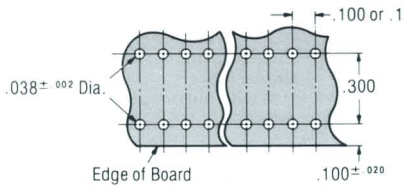
.100" Centers

No. of Circuits	A (Max.)	Assembly Part Number
2	.195	1-380949-2
3	.295	1-380949-3
4	.395	1-380949-4
5	.495	1-380949-5
6	.595	1-380949-6
7	.695	1-380949-7
8	.795	1-380949-8
9	.895	1-380949-9
10	.995	2-380949-0
11	1.095	2-380949-1
12	1.195	2-380949-2
13	1.295	2-380949-3
14	1.395	2-380949-4
15	1.495	2-380949-5
16	1.595	2-380949-6

.150" Centers

No. of Circuits	A (Max.)	Assembly Part Number
2	.295	1-380950-2
3	.445	1-380950-3
4	.595	1-380950-4
5	.745	1-380950-5
6	.895	1-380950-6
7	1.045	1-380950-7
8	1.195	1-380950-8
9	1.345	1-380950-9
10	1.495	2-380950-0
11	1.645	2-380950-1





Recommended Mounting Hole Pattern

Material:
Housings: 94V-0 unreinforced nylon
Receptacles: .022 brass tin-plated

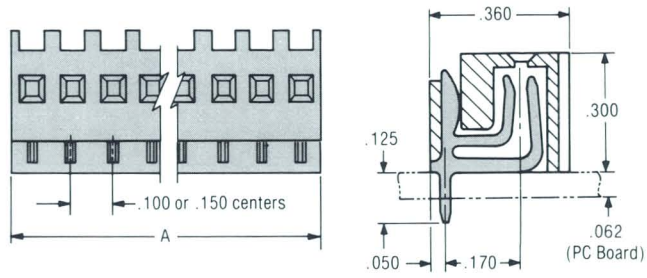
Top Entry

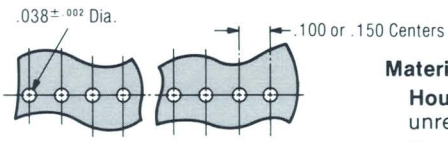
.100" Centers

No. of Circuits	A (Max.)	Assembly Part Number
2	.195	5-380949-2
3	.295	5-380949-3
4	.395	5-380949-4
5	.495	5-380949-5
6	.595	5-380949-6
7	.695	5-380949-7
8	.795	5-380949-8
9	.895	5-380949-9
10	.995	6-380949-0
11	1.095	6-380949-1
12	1.195	6-380949-2
13	1.295	6-380949-3
14	1.395	6-380949-4
15	1.495	6-380949-5
16	1.595	6-380949-6

.150" Centers

No. of Circuits	A (Max.)	Assembly Part Number
2	.295	5-380950-2
3	.445	5-380950-3
4	.595	5-380950-4
5	.745	5-380950-5
6	.895	5-380950-6
7	1.045	5-380950-7
8	1.195	5-380950-8
9	1.345	5-380950-9
10	1.495	6-380950-0
11	1.645	6-380950-1





Recommended Mounting Hole Pattern

Material:
Housings: 94V-0 unreinforced nylon
Receptacles: .022 brass tin-plated

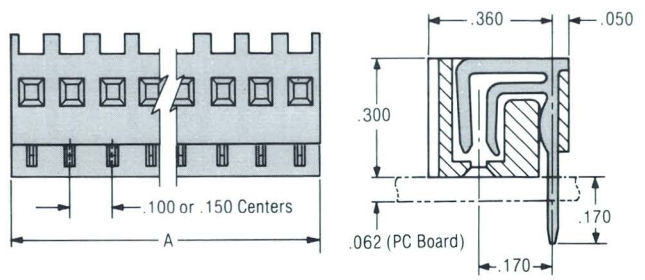
Bottom Entry

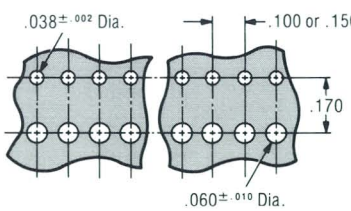
.100" Centers

No. of Circuits	A (Max.)	Assembly Part Number
2	.195	3-380949-2
3	.295	3-380949-3
4	.395	3-380949-4
5	.495	3-380949-5
6	.595	3-380949-6
7	.695	3-380949-7
8	.795	3-380949-8
9	.895	3-380949-9
10	.995	4-380949-0
11	1.095	4-380949-1
12	1.195	4-380949-2
13	1.295	4-380949-3
14	1.395	4-380949-4
15	1.495	4-380949-5
16	1.595	4-380949-6

.150" Centers

No. of Circuits	A (Max.)	Assembly Part Number
2	.295	3-380950-2
3	.445	3-380950-3
4	.595	3-380950-4
5	.745	3-380950-5
6	.895	3-380950-6
7	1.045	3-380950-7
8	1.195	3-380950-8
9	1.345	3-380950-9
10	1.495	4-380950-0
11	1.645	4-380950-1





Recommended Mounting Hole Pattern

Material:
Housings: 94V-0 unreinforced nylon
Receptacles: .022 brass tin-plated

Housings

Material: 94V-0 unreinforced nylon

.100" Centers
Accepts insulation range of .070 Dia. Max. Unstackable end to end

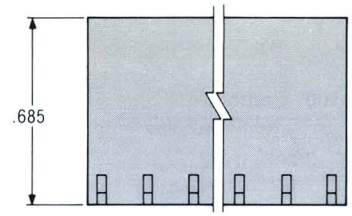
No. of Circuits	A (Max.)	Non-Polarized Part Number
1	.205	350091-1
2	.305	350091-2
3	.405	350091-3
4	.505	350091-4
5	.605	350091-5
6	.705	350091-6
7	.805	350091-7
8	.905	350091-8
9	1.005	350091-1
10	1.105	1-350091-0
11	1.250	1-350091-1
12	1.305	1-350091-2
13	1.405	1-350091-3
14	1.505	1-350091-4
15	1.605	1-350091-5
16	1.705	1-350091-6
17	1.805	1-350091-7

Note:
Use with pin headers 640098 or 640099.

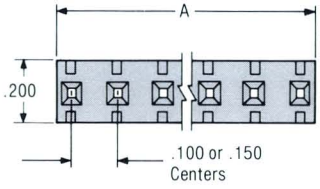
.150" Centers
Accepts insulation range of .110 Dia. Max. Unstackable end to end

No. of Circuits	A (Max.)	Non-Polarized Part Number
2	.455	350092-2
3	.605	350092-3
4	.755	350092-4
5	.905	350092-5
6	1.055	350092-6
7	1.205	350092-7
8	1.355	350092-8
9	1.505	350092-9
10	1.655	1-350092-0
11	1.805	1-350092-1

Note:
Use with pin headers 640057 or 640097.



Style A

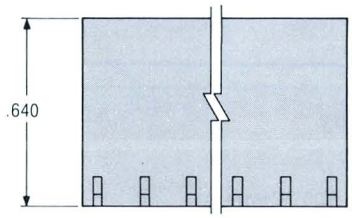


Material: Polyester thermoplastic unreinforced 94V-0

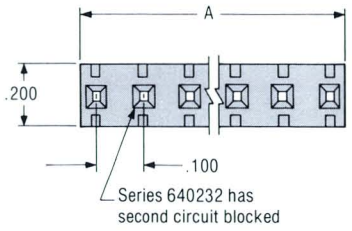
.100" Centers Accepts insulation range of .070 Dia. Max.
Stackable end to end

Number of Circuits (Non-Polarized)	A	Non-Polarized* Part Number	Number of Circuits (Polarized)	Polarized** Part Number
3	.300	640235-3		
4	.400	640235-4	3	640232-3
5	.500	640235-5	4	640232-4
6	.600	640235-6	5	640232-5
7	.700	640235-7	6	640232-6
9	.900	640235-9	8	640232-8
10	1.000	1-640235-0	9	640232-9
12	1.200	1-640235-2	11	1-640232-1
14	1.400	1-640235-4	13	1-640232-3
15	1.500	1-640235-5	14	1-640232-4
18	1.800	1-640235-8	17	1-640232-7
20	2.000	2-640235-0	19	1-640232-9

*Use with pin headers 640098 or 640099.
**Use with pin headers 640239 or 640238.



Style B



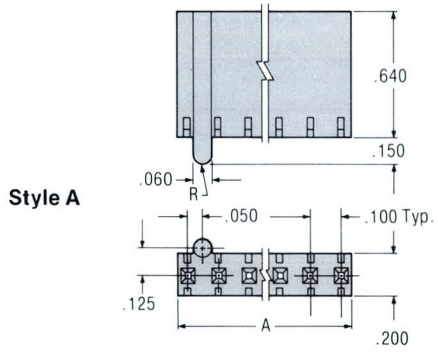
Housings with Polarizing Pins

Material: 94V-0 unreinforced nylon except where indicated

.100" Centers Accepts insulation range of .070 Dia. Max.
Stackable end to end

No. of Circuits	A	Part Number
3	.300	640234-3
4	.400	640234-4
5	.500	640234-5
6	.600	640234-6
7	.700	640234-7
9	.900	640234-9
10	1.000	1-640234-0
12	1.200	1-640234-2
14	1.400	1-640234-4
15	1.500	1-640234-5
18	1.800	1-640234-8
20	2.000	2-640234-0

Note:
Use with pin headers 640236 or 640237.

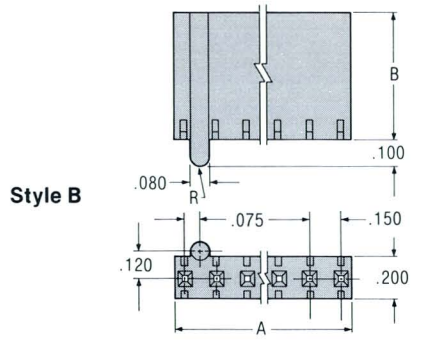


Style A

.150" Centers Accepts insulation range of .070 Dia. Max.
Unstackable end to end

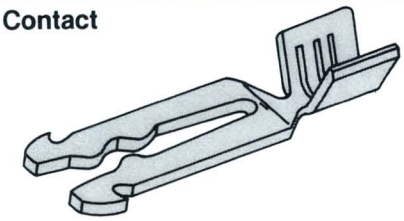
Number of Circuits	Dimensions A	Dimensions B	Part Number	U.L. Material Rating
3	.480	.610	640115-1	94V-2
4	.630	.610	640116-1	94V-2
5	.780	.610	640117-1	94V-2
6	.880	.688	350095-1	94V-0
6	.880	.688	350095-2	94V-2

Note:
Use with pin headers 640242 or 640243.

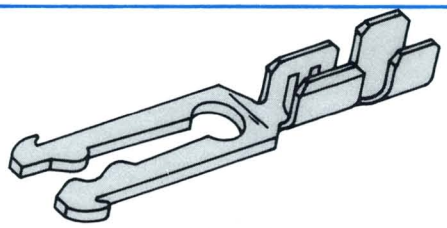


Style B

Contact



Non-Insulation Support
Material: .020 Brass
Finish: Tin Plate
Part Number: 350090-1
350556-1 (Loose Piece)
Wire Range: 22-18 AWG
Hand Tool: Part Number 90062



Insulation Support
Material: .014 Brass
Finish: Tin Plate
Part Number: 640230-1
640276-1 (Loose Piece)
Wire Range: 26-20 AWG
Insulation Range: .030-.060 Diameter
Hand Tool: Part Number 90339-1

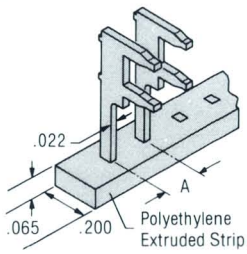
Tooling

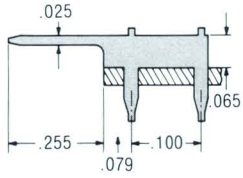
AMP miniature applicators can be used in the AMPOMATOR machine for producing up to 5,700 doubly terminated leads per hour or in the semi-automatic AMP-O-LECTRIC machine. For maximum efficiency, adjustments are made rapidly, with no major interruptions in production. Crimping height on insulation and wire barrel for a given wire size is simply "dialed in".

Contact Extraction Tool:
Part Number 457445-1

Free Standing Posts (.022 x .025)

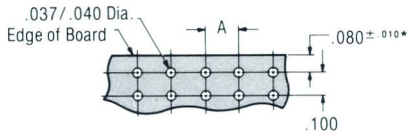
"F" Post (ZIP Strip) Gang Insertion





NOTE: To be inserted into two .037/.040 Dia. Holes in .0625 thick pc board

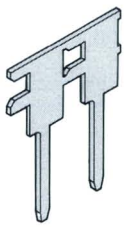
Part Number	A	Quantity per Reel
1-380953-0	.100	30,000
1-380953-1	.150	30,000
1-380953-2	.100	2,500
1-380953-3	.150	2,500

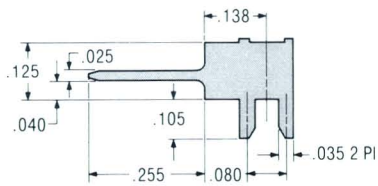


Recommended Mounting Hole Pattern

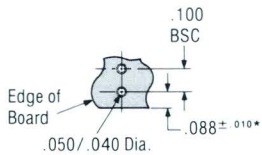
*May be .070/.150 where top or side entry receptacles are used.

"F" Post (Continuous Strip on Reels) Machine Inserted





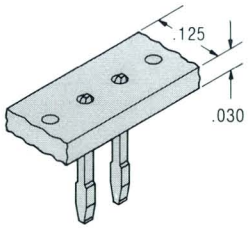
Material: .022 Brass
Finish: Tin Plate
Part Number: 350508-1



Recommended Mounting Hole Pattern

*May be .070/.150 where top or side entry receptacles are used.

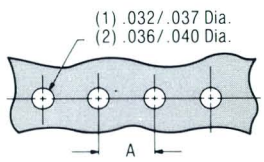
Straight Post (Zip Strip)



(see drawing following page for post dimensions)

Part Number	A	Quantity per Reel
350098-1	.100	30,000
350098-2	.150	30,000
350098-3	.100	2,500
350098-4	.150	2,500

NOTE: Same item as part number 350097-1 except furnished in nylon strip for gang insertion (No applicator required. Recommended specifications for assembly tooling furnished on request.)

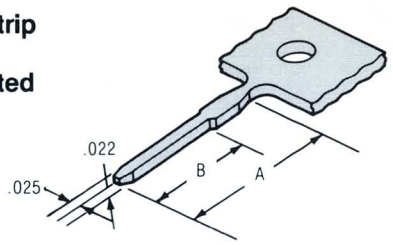


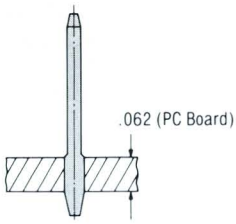
Recommended Mounting Hole Pattern

(1) Punched hole NEMA FR-6 material
(2) Drilled hole G-10 material

Free Standing Posts (.022 x .025)

Straight Post (Continuous Strip on Reels) Machine Inserted





Part Number	Dimensions		Board Hole Diameter*
	A	B	
350097-1	.360	.255	.032-.037
640120-1	.360	.255	.035-.040
640006-1	.435	.325	.040-.050

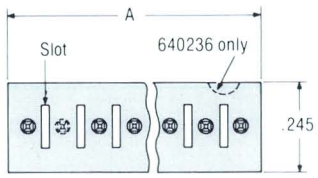
Material: .022 Brass
Finish: Tin Plate
*Recommended size for NEMA FR-6 type board. Other materials may require different diameters.

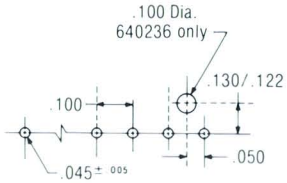
Post Header Assemblies (.025 x .025)

.100" Centers Straight Post Header Assembly

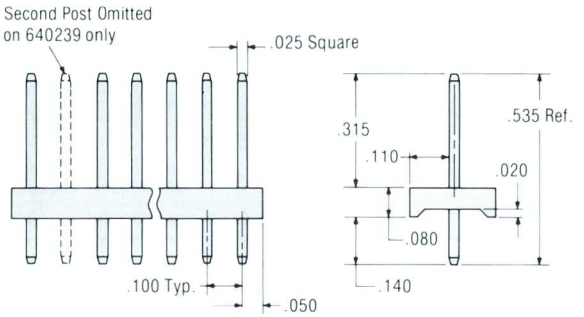
No. of Positions	A	Non-Polarized Part Number*	Polarized Part Number**	Polarized Part No.*** (post omitted)	No. of Positions (640239 only)
2	.200	640098-2	640236-2	—	—
3	.300	640098-3	640236-3	—	—
4	.400	640098-4	640236-4	640239-3	3
5	.500	640098-5	640236-5	640239-4	4
6	.600	640098-6	640236-6	640239-5	5
7	.700	640098-7	640236-7	640239-6	6
8	.800	640098-8	640236-8	640239-7	7
9	.900	640098-9	640236-9	640239-8	8
10	1.000	1-640098-0	1-640236-0	640239-9	9
11	1.100	1-640098-1	1-640236-1	1-640239-0	10
12	1.200	1-640098-2	1-640236-2	1-640239-1	11
13	1.300	1-640098-3	1-640236-3	1-640239-2	12
14	1.400	1-640098-4	1-640236-4	1-640239-3	13
15	1.500	1-640098-5	1-640236-5	1-640239-4	14
16	1.600	1-640098-6	1-640236-6	1-640239-5	15
17	1.700	1-640098-7	1-640236-7	1-640239-6	16
18	1.800	1-640098-8	1-640236-8	1-640239-7	17
19	1.900	1-640098-9	1-640236-9	1-640239-8	18
20	2.000	2-640098-0	2-640236-0	1-640239-9	19
21	2.100	2-640098-1	2-640236-1	2-640239-0	20
22	2.200	2-640098-2	2-640236-2	2-640239-1	21
23	2.300	2-640098-3	2-640236-3	2-640239-2	22
24	2.400	2-640098-4	2-640236-4	2-640239-3	23

*Mates with crimp snap-in receptacle housings 350091 or 640235; or receptacle assemblies (page 3)
**Mates with crimp snap-in receptacle housing 640234
***Mates with crimp snap-in receptacle housing 640232





Recommended Mounting Hole Sizes in 1/16 Thk. PC Board
Tolerance applies to solder side of board.

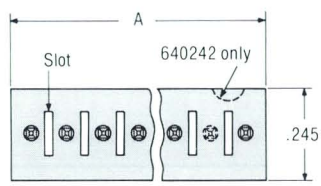


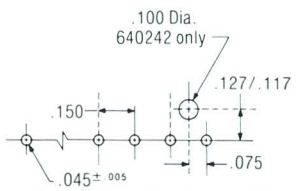
Material:
Header: Thermoplastic polyester 94V-0 rated
Posts: Pre-tin plated, copper alloy

.150" Centers Straight Post Header Assembly

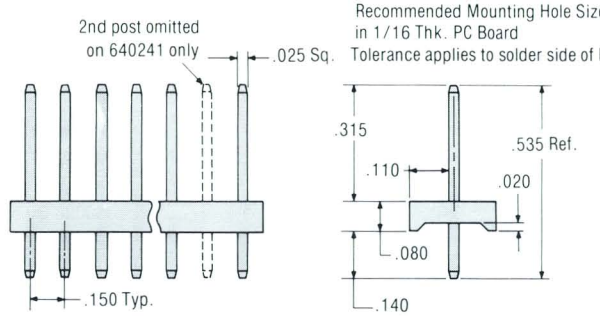
No. of Positions	A	Non-Polarized Part Number*	Polarized Part Number**	Polarized Part Number*** (post omitted)	No. of Positions (640241 only)
1	.150	640057-1	—	—	—
2	.300	640057-2	—	—	—
3	.450	640057-3	640242-3	—	—
4	.600	640057-4	640242-4	640241-3	3
5	.750	640057-5	640242-5	640241-4	4
6	.900	640057-6	640242-6	640241-5	5
7	1.050	640057-7	—	640241-6	6
8	1.200	640057-8	—	640241-7	7
9	1.350	640057-9	—	640241-8	8
10	1.500	1-640057-0	—	640241-9	9
11	1.650	1-640057-1	—	1-640241-0	10
12	1.800	1-640057-2	—	1-640241-1	11
13	1.950	1-640057-3	—	1-640241-2	12
14	2.100	1-640057-4	—	1-640241-3	13
15	2.250	1-640057-5	—	1-640241-4	14
16	2.400	1-640057-6	—	1-640241-5	15

*Mates with 350092 crimp snap-in housings or receptacle assemblies (page 3)
**640242-3 mates with 640115-1; 640242-4 mates with 640116-1; 640242-5 mates with 640117-1; 640242-6 mates with 350095-1 or -2
***Mates with 350092 — use keying plug 640256 for polarization





Recommended Mounting Hole Sizes in 1/16 Thk. PC Board
Tolerance applies to solder side of board



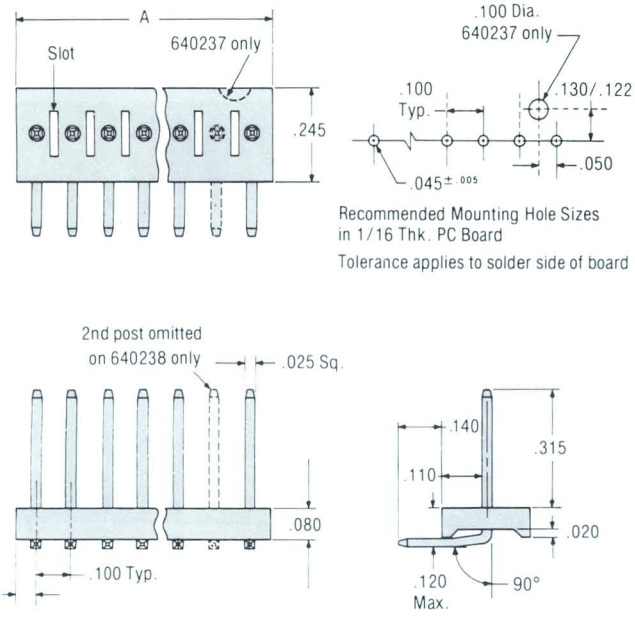
Material: **Header:** Thermoplastic polyester 94V-0 rated
Posts: Pre-tin, copper alloy

.100" Centers
Right Angle Post Header Assembly

No. of Positions	A	Non-Polarized Part Number*	Polarized Part Number**	Polarized Part No.*** (post omitted)	No. of Positions (640238 only)
1	.100	640099-1	—	—	—
2	.200	640099-2	640237-2	—	—
3	.300	640099-3	640237-3	—	—
4	.400	640099-4	640237-4	640238-3	3
5	.500	640099-5	640237-5	640238-4	4
6	.600	640099-6	640237-6	640238-5	5
7	.700	640099-7	640237-7	640238-6	6
8	.800	640099-8	640237-8	640238-7	7
9	.900	640099-9	640237-9	640238-8	8
10	1.000	1-640099-0	1-640237-0	640238-9	9
11	1.100	1-640099-1	1-640237-1	1-640238-0	10
12	1.200	1-640099-2	1-640237-2	1-640238-1	11
13	1.300	1-640099-3	1-640237-3	1-640238-2	12
14	1.400	1-640099-4	1-640237-4	1-640238-3	13
15	1.500	1-640099-5	1-640237-5	1-640238-4	14
16	1.600	1-640099-6	1-640237-6	1-640238-5	15
17	1.700	1-640099-7	1-640237-7	1-640238-6	16
18	1.800	1-640099-8	1-640237-8	1-640238-7	17
19	1.900	1-640099-9	1-640237-9	1-640238-8	18
20	2.000	2-640099-0	2-640237-0	1-640238-9	19
21	2.100	2-640099-1	2-640237-1	2-640238-0	20
22	2.200	2-640099-2	2-640237-2	2-640238-1	21
23	2.300	2-640099-3	2-640237-3	2-640238-2	22
24	2.400	2-640099-4	2-640237-4	2-640238-3	23

NOTE: Part number 640237 to be used in conjunction with receptacle housing 640234.

*Mates with crimp snap-in housings 350091 or 640235; or receptacle assemblies (page 3)
**Mates with crimp snap-in housings 640234
***Mates with crimp snap-in housings 640232



Recommended Mounting Hole Sizes in 1/16 Thk. PC Board

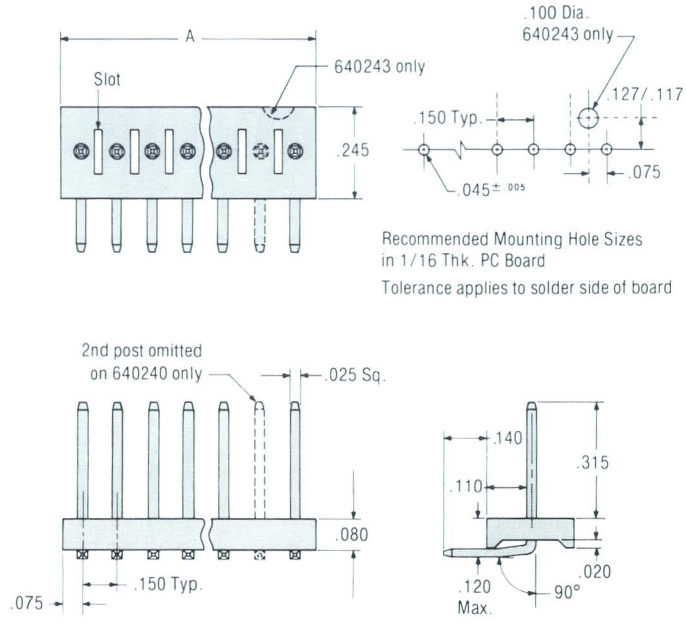
Tolerance applies to solder side of board

Material:
Header: Thermoplastic polyester 94V-0 rated
Posts: Pre-tin, copper alloy

.150" Centers
Right Angle Post Header Assembly

No. of Positions	A	Non-Polarized Part Number*	Polarized Part Number**	Polarized Part Number*** (post omitted)	No. of Positions (640240 only)
1	.150	640097-1	—	—	—
2	.300	640097-2	—	—	—
3	.450	640097-3	640243-3	—	—
4	.600	640097-4	640243-4	640240-3	3
5	.750	640097-5	640243-5	640240-4	4
6	.900	640097-6	640243-6	640240-5	5
7	1.050	640097-7	—	640240-6	6
8	1.200	640097-8	—	640240-7	7
9	1.350	640097-9	—	640240-8	8
10	1.500	1-640097-0	—	640240-9	9
11	1.650	1-640097-1	—	1-640240-0	10
12	1.800	1-640097-2	—	1-640240-1	11
13	1.950	1-640097-3	—	1-640240-2	12
14	2.100	1-640097-4	—	1-640240-3	13
15	2.250	1-640097-5	—	1-640240-4	14
16	2.400	1-640097-6	—	1-640240-5	15

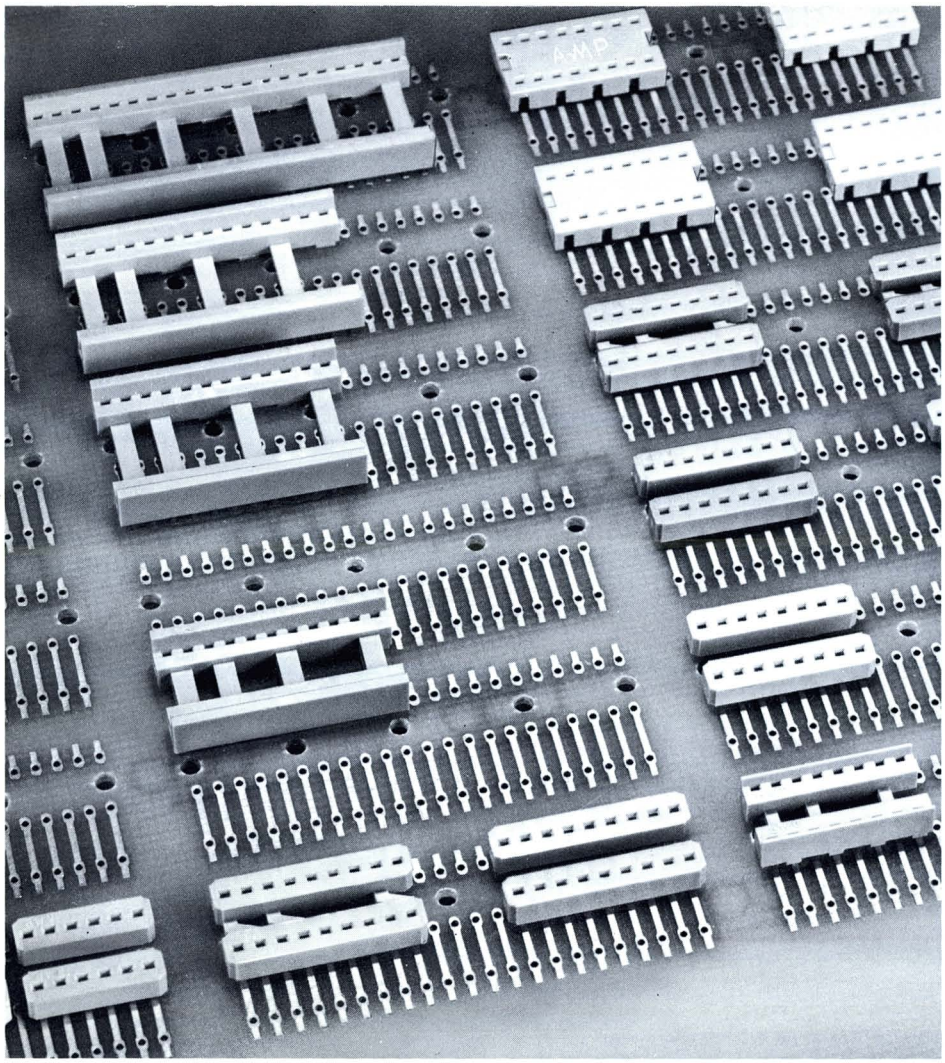
*Mates with 350092 crimp snap-in housings or receptacle assemblies (page 3)
**640243-3 mates with 640115-1; 640243-4 mates with 640116-1; 640243-5 mates with 640117-1; 640243-6 mates with 350095-1 or -2
***Mates with 350092 — use keying plug 640256 for polarization



Recommended Mounting Hole Sizes in 1/16 Thk. PC Board

Tolerance applies to solder side of board

Material:
Header: Thermoplastic polyester 94V-0 rated
Posts: Pre-tin plated, copper alloy



AMP Dual In-Line Package (DIP) Sockets, Strip Receptacles and Substrate Sockets

Features

- All housings made of self extinguishing 94V-0 rated material
- IC type accepts rectangular leads up to .015" x .030"
- Housings have wide chamfered lead cavities for easy IC insertion
- Sockets accept 14 to 40 position IC's
- Strip receptacles accept 6 to 44 position devices
- Substrate sockets accept 14 to 44 position devices
- One piece housings and contacts
- Stand-offs at the board interface eliminate flux entrapment and facilitate cooling
- High density packaging with maximum reliability at the lowest possible cost

Note: All dimensions in inches or inches and metric equivalents.

Specifications subject to change. Consult AMP Incorporated for latest design specifications.

AMP DIP Sockets, Receptacles and Substrate Sockets provide low cost, reliable high density packaging for IC's and substrates with up to 44 positions. Available in standard profile and low profile versions, this versatile family offers point to point wiring or soldered interconnection capabilities.

The low profile DIP sockets are available in standard and economy versions with either beryllium copper or phosphor bronze contacts. Low profile sockets are only .160" high and come in 14 to 40 position versions. The contacts feature anti-wicking, anti-bridging design and are available with in-line or staggered grid contact patterns.

The low profile DIP Strip receptacles have chamfered lead cavities to facilitate IC insertion. Like the low profile DIP sockets, low profile DIP strip receptacles are only .160" high. The receptacles come in sizes from 6 positions to 44 positions in the dual strip form, or 3 to 22 positions in the single strip form.

The Standard Profile DIP sockets are one piece assemblies available with .022" x .036" posts and .025" square posts for point to point back panel wiring with TERMI-POINT clips or wrap-type techniques. These 14 or 16 position sockets are also available with solder tails for wave or dip soldering to a pc board.

The Low Profile Leadless Substrate sockets accept metallized leadless ceramic substrates or can be supplied with an adapter to accept leaded substrates. Contacts are arranged on .100" x .600" centers and are available in 24, 28 and 40 positions.

The Leaded Substrate Sockets have contacts arranged on .100" x .400" centers with 22 positions and .100" x .600" centers with 24, 28 or 40 positions.

These leadless and leaded substrate sockets are manufactured of glass-filled polyester offering excellent dimensional stability and resistance to distortion at high temperatures, plus superior moisture resistance and electrical-dielectric properties. Contacts, made of stainless steel with tin-lead all over or gold inlay in contact area, provide superior spring action for wiping engagement and accept a wide range of lead thicknesses.

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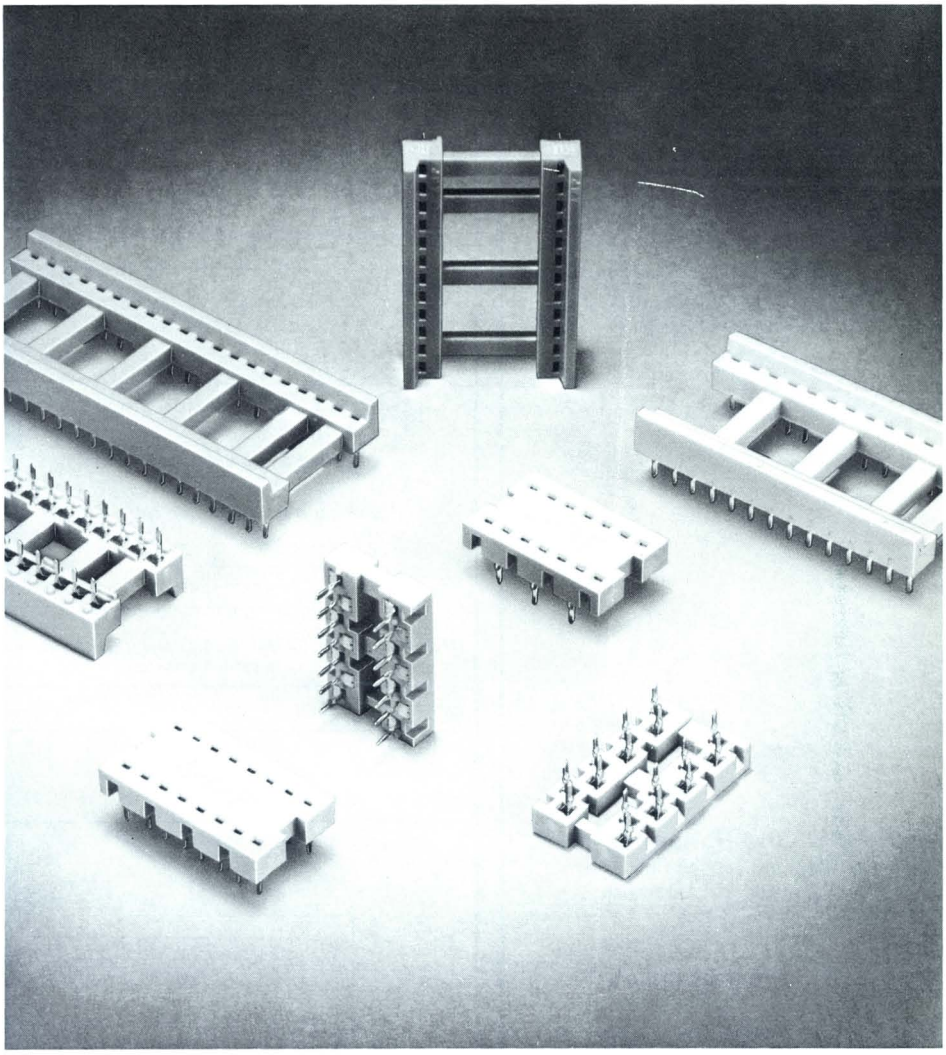
Introduction to Low Profile DIP Sockets



Features

- Accept 14 to 40 position with rectangular lead dimensions up to .015" x .030"
- Low profile housings—.160 high
- Wide, angular lead-in for easy IC insertion
- Housings are self-retaining and visually polarized to facilitate board mounting
- Available with tin or gold plated contacts in staggered grid or in-line patterns
- High density packaging with maximum reliability at lowest cost

All Low Profile DIP Sockets are designed to meet the requirements of AMP Product Specification No. 108-9029.

AMP Low Profile DIP Sockets provide economical, high density packaging for 14 to 40 position IC's. Designed to be wave or dip soldered to pc boards up to .094" thick, these versatile sockets will accept IC's having rectangular leads from .008" square to .015" x .030". Exact retention is maintained for all leads due to the unique leaf spring design of the socket contacts.

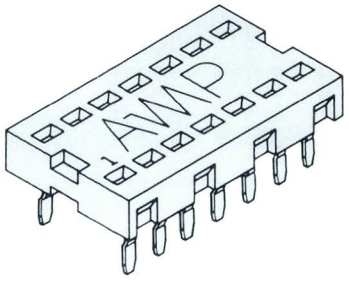
The one-piece contacts are made of high grade beryllium copper and are tin or gold plated for optimum solderability. Their featured antiwicking design inhibits solder from entering the lead contact area during soldering, and also allows the sockets to be self-retaining when inserted into the pc board.

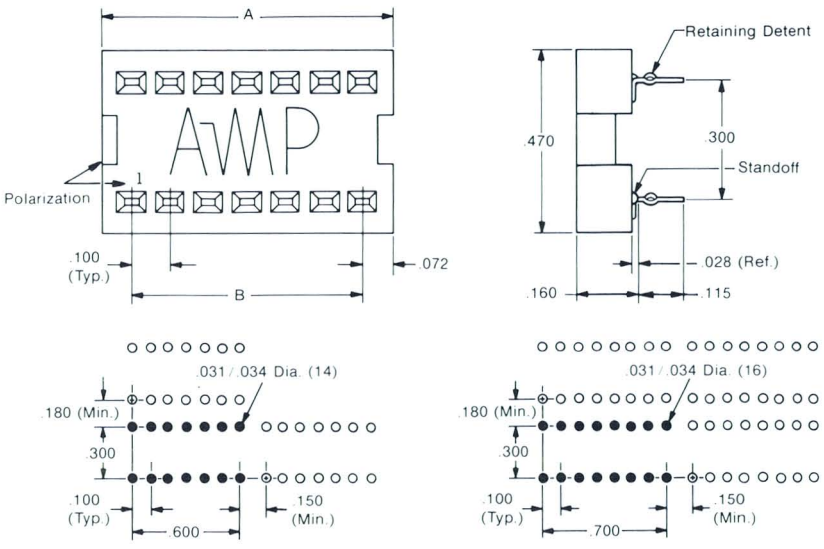
The one-piece housings are made of glass filled, self extinguishing, 94V-O rated nylon, and are of low profile design—only .160" high. They are available with contact cavities on .100" x .300" centers and contact tails in either an in-line or staggered grid pattern. Housings with contact cavities on .100" x .400" and .100" x .600" are in-line only, and have a lead-in ramp. Additional housing features include wide, angular lead-in for easy IC insertion, and stand-offs at the board interface side to facilitate the cleaning process after the soldering operation.

Low Profile 300 Series DIP Socket Specifications

In Line Grid Pattern

(Accepts rectangular leads up to .015" x .030")





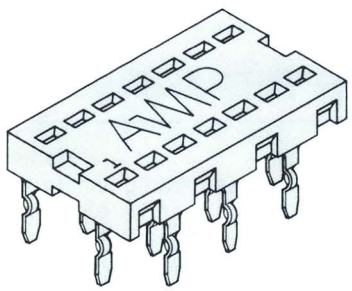
14-Position Mounting Pattern **16-Position Mounting Pattern**

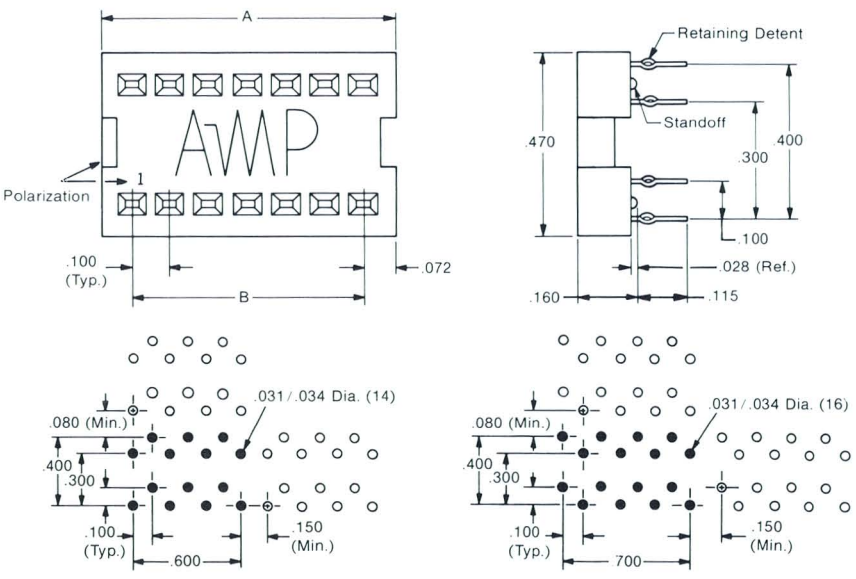
Materials: Housing—self-extinguishing glass filled nylon, 94V-0 rated; natural color
Contact—beryllium copper

Number of Positions	Dimensions A	Dimensions B	Contact Finish	Socket Part Number
14	.744	.600	Gold Flash	583768-1
			Tin	583527-1
16	.844	.700	Gold Flash	583769-1
			Tin	583529-1

Staggered Grid Pattern

(Accepts rectangular leads up to .015" x .030")





14-Position Mounting Pattern **16-Position Mounting Pattern**

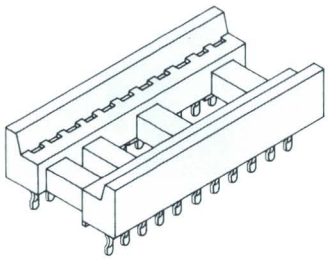
Materials: Housing—self-extinguishing glass filled nylon, 94V-0 rated; natural color
Contact—beryllium copper

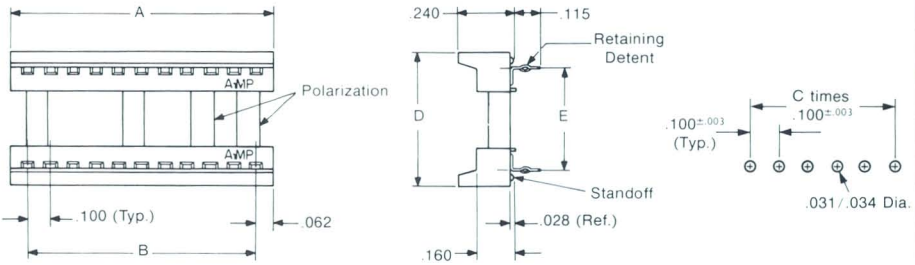
Number of Positions	Dimensions A	Dimensions B	Contact Finish	Socket Part Number
14	.744	.600	Tin	583509-1
16	.844	.700	Tin	583560-1

Low Profile 300, 400 and 600 Series DIP Socket Specifications

Dual In-Line Grid Pattern With Lead-in Ramp

(Accepts rectangular leads up to .015" x .030")



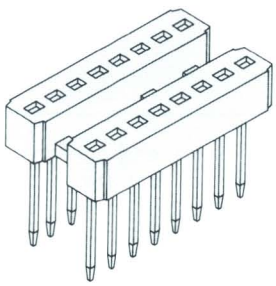


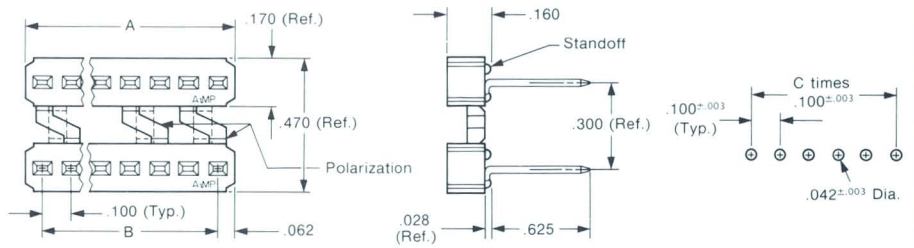
Materials: Housing—self-extinguishing glass filled nylon, 94V-0 rated; natural color
Contact—tin plated beryllium copper

Series	Number of Positions	Dimensions					Socket Part Number
		A	B	C	D	E	
400	22	1.124	1.000	10	.570	.400	530178-1
600	24	1.224	1.100	11	.770	.600	530018-1
	28	1.424	1.300	13	.770	.600	530018-3
	40	2.024	1.900	19	.770	.600	530018-2

Dual In-Line Grid Pattern With .025" Square Posts

(Accepts rectangular leads up to .015" x .030", with a maximum allowable difference between interchanged leads no greater than .004")



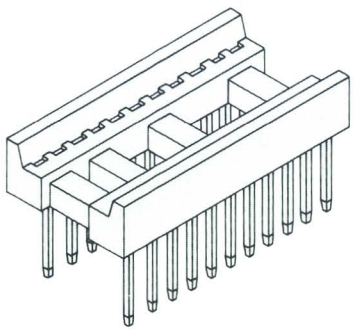


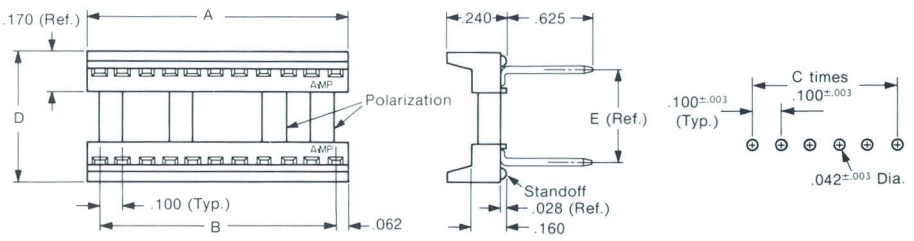
Materials: Housing—self-extinguishing glass filled nylon, 94V-0 rated; natural color
Contact—tin plated phosphor bronze

Number of Positions	Dimensions			Socket Part Number
	A	B	C	
14	.724	.600	6	530600-1
16	.824	.700	7	530600-2
18	.924	.800	8	530600-3

Dual In-Line Grid Pattern With .025" Square Posts and Lead-in Ramps

(Accepts rectangular leads up to .015" x .030", with a maximum allowable difference between interchanged leads no greater than .004")





Materials: Housing—self-extinguishing glass filled nylon, 94V-0 rated; natural color
Contact—tin plated phosphor bronze

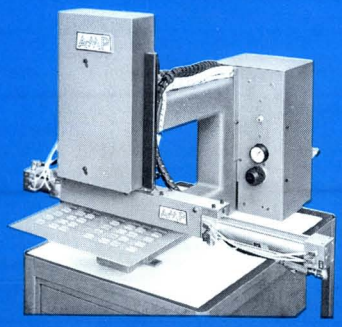
Series	Number of Positions	Dimensions					Socket Part Number
		A	B	C	D	E	
400	22	1.124	1.000	10	.570	.400	530601-1
600	24	1.224	1.100	11	.770	.600	530602-1
	28	1.424	1.300	13	.770	.600	530602-3
	40	2.024	1.900	19	.770	.600	530602-2

Introduction to Low Profile Economy DIP Sockets

Features

- Accept 14- and 16-lead IC's with rectangular lead dimensions up to .015" x .030"
- Low profile housings—.160 high
- Wide, angular lead-in for easy IC insertion
- Housings are self-retaining and visually polarized to facilitate board mounting
- Available with tin plated tails in staggered grid or in-line patterns
- High density packaging with maximum reliability at lowest cost

All Low Profile DIP Sockets are designed to meet the requirements of AMP Product Specification No. 108-9029.



A machine is now available to speed the insertion of the Low Profile Economy DIP Sockets into printed circuit boards. This machine further reduces the overall installed cost of the DIP sockets. Contact your local AMP Sales Engineer or AMP Incorporated for details.

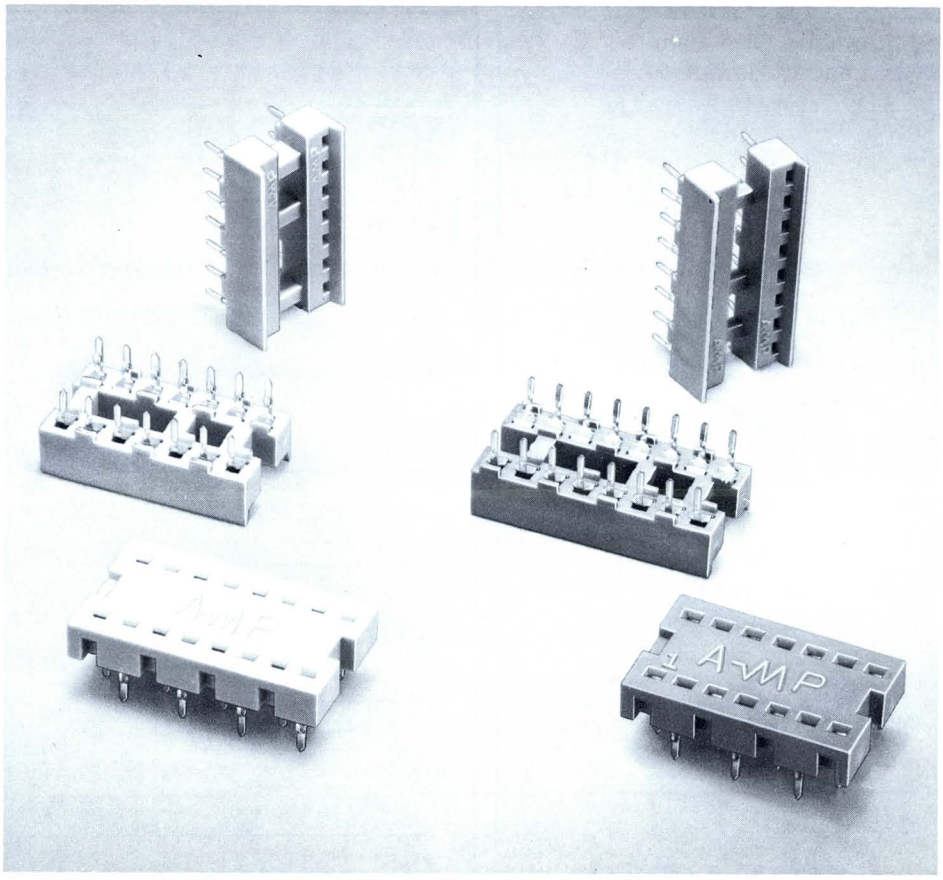
Machine Specifications

Cycle speed—4000 cycles per hour

All electric—
Compatible with computer controlled equipment

Table—
With pantograph
13 x 16' board size
8 inch overall head width
Three head capability

Product Compatibility—
Will drive 14 and 16 position Economy DIP Sockets



AMP Low Profile Economy DIP Sockets are another AMP contribution to higher density, very economical IC packaging. Designed to be wave or dip soldered to pc boards up to .094" thick, these sockets will accept IC's having rectangular leads with maximum dimensions of .015" x .030". The unique leaf-spring design of the socket contacts maintains exact retention for all leads, with a maximum allowable difference between interchanged leads no greater than .004".

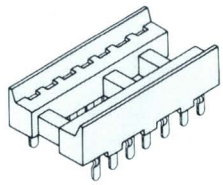
The one-piece contacts are made of economical and reliable phosphor bronze, and are pre-tin plated for optimum solderability. Their featured anti-wicking design inhibits solder from entering the lead contact area during soldering, and also allows the sockets to be self-retaining when inserted into the pc board.

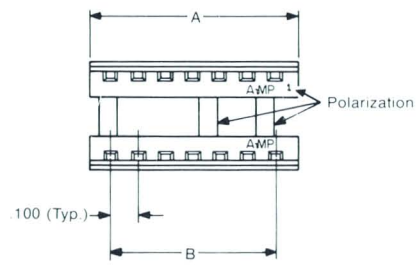
The one piece housings are made of glass filled, self-extinguishing, 94V-O rated nylon, and are of a low profile design—only .160" high. They are available with contact cavities on .100" x .300" centers and contact tails in either an in-line or staggered grid pattern. Additional housing features include wide, angular lead-in for easy IC insertion on all housings, with additional lead-in ramps for in-line housings, and stand-offs at the board interface side to facilitate the cleaning process after the soldering operation.

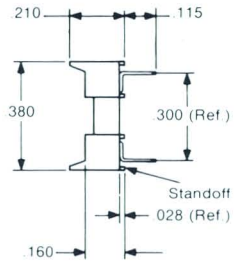
Low Profile
Economy 300 Series DIP Socket
Specifications

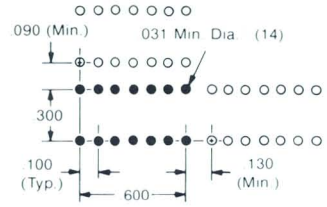
In Line Grid Pattern
With Lead-in Ramp

(Accepts rectangular leads up to .015" x .030", with a maximum allowable difference between interchanged leads no greater than .004")

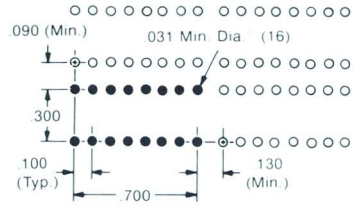








14-Position Mounting Pattern



16-Position Mounting Pattern

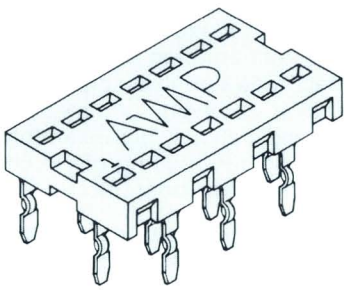
.038 Min. Dia. when using socket insertion machine.

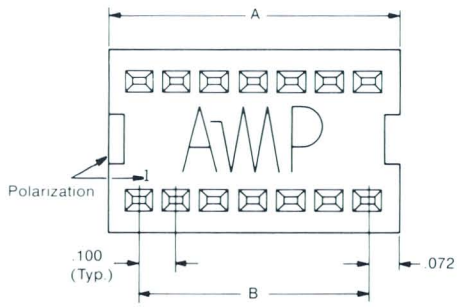
Materials: Housing—self-extinguishing glass filled nylon, 94V-0 rated; natural color
Contact—pre-tin plated phosphor bronze

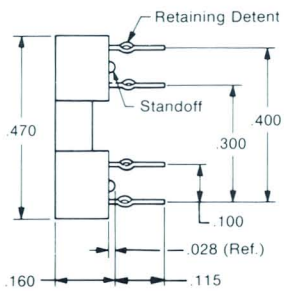
Number of Positions	Dimensions		Socket Part Number
	A	B	
14	.724	.600	530177-1
16	.824	.700	530177-2

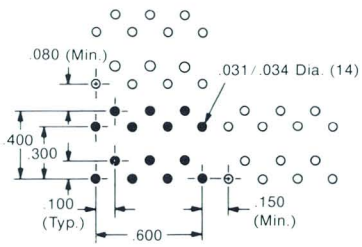
Staggered Grid Pattern

(Accepts rectangular leads up to .015" x .030", with a maximum allowable difference between interchanged leads no greater than .004".)

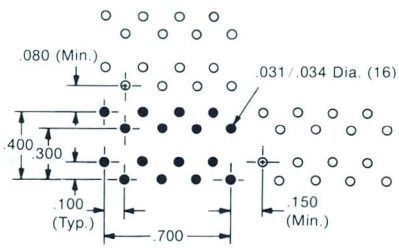








14-Position Mounting Pattern

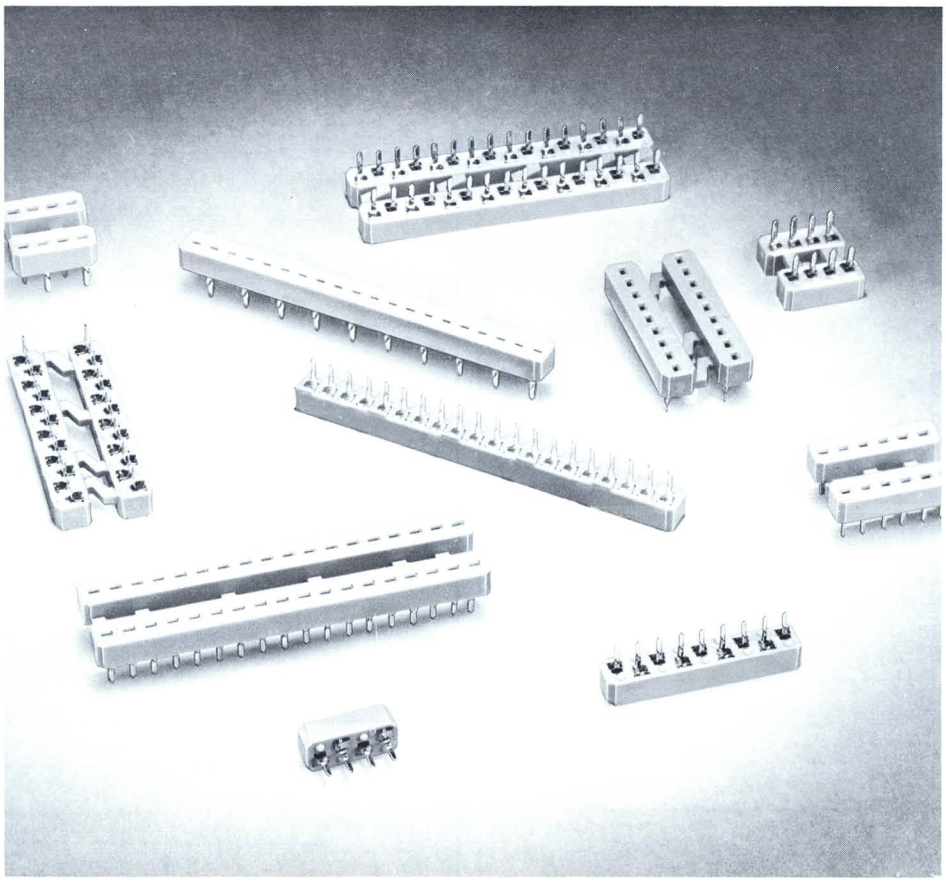


16-Position Mounting Pattern

Materials: Housing—self-extinguishing glass filled nylon, 94V-0 rated; natural color
Contact—pre-tin plated phosphor bronze

Number of Positions	Dimensions		Socket Part Number
	A	B	
14	.744	.600	530180-1
16	.844	.700	530180-2

Introduction to Low Profile DIP Strip Receptacles



Features

- Accept IC's with up to 44 rectangular leads
- Maximum lead dimensions can be .015" x .030"
- Low profile design—housings only .160 high
- Wide, angular lead-in assures easy IC insertion
- Self-retaining housings and anti-wicking design enhance solderability . . . even for "plated-thru hole" applications
- Available with solder tails in staggered grid and in-line patterns
- High density connections, maximum reliability at lowest possible cost

All Low Profile DIP Strip Receptacles are designed to meet the requirements of AMP Product Specification No. 108-9029.

AMP Low Profile DIP Strip Receptacles incorporate the industry preferred features of high density connections, with top performance at an exceptionally low cost. They are designed to be wave or dip soldered to pc boards up to .094" thick, and to accommodate IC's with as many as 44 rectangular leads. Leads up to .015" x .030" are accommodated.

The one-piece contacts are tin plated beryllium copper, and employ a leaf-spring design to assure that exact retention is maintained for all lead sizes, despite repeated insertions and extractions. Gold plated contacts are available upon request. For optimum solderability, the contact tails incorporate retaining detents which allow receptacles to be self-retained when inserted into a pc board. The detents also serve as an anti-wicking feature to inhibit solder from entering the lead contact area during a soldering operation . . . even in "plated thru hole" applications. High standoffs prevent solder bridging of circuitry on double sided boards.

The receptacle housings are molded from glass filled, self extinguishing 94V-O rated nylon and are only .160" high. They are furnished in either single strips with 3 thru 22 contacts, or in pairs (two strips attached by a breakaway ladder). All housings which have contact cavities on .100" x .300" centers are supplied with tails in an in-line or staggered grid pattern.

Low Profile DIP Strip Receptacle Specifications

Dual Strip Receptacle

(Accepts rectangular leads up to .015" x .030")

Materials:

Housing—self-extinguishing glass filled nylon, 94V-0 rated; natural color

Contact—tin plated beryllium copper

No. of Pos.	Dimensions			Receptacle Part Number	
	A	B	C	In-Line	Staggered Gird
6	.324	.200	2	1-583640-6	—
8	.424	.300	3	583640-1	583641-1
10	.524	.400	4	1-583640-1	1-583641-1
12	.624	.500	5	1-583640-2	1-583641-2
14	.724	.600	6	1-583640-3	1-583641-3
16	.824	.700	7	1-583640-4	1-583641-4
18	.924	.800	8	583640-9	583641-9
20	1.024	.900	9	583640-2	583641-2
22	1.124	1.000	10	1-583640-5	—
24	1.224	1.100	11	583640-3	583641-3
26	1.324	1.200	12	1-583640-0	1-583641-0
28	1.424	1.300	13	583640-4	583641-4
32	1.624	1.500	15	583640-5	583641-5
36	1.824	1.700	17	583640-6	583641-6
40	2.024	1.900	19	583640-7	583641-7
44	2.224	2.100	21	583640-8	583641-8

Single Strip Receptacle

(Accepts rectangular leads up to .015" x .030")

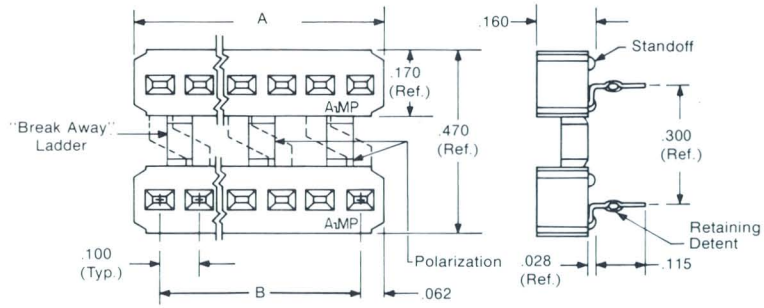
Materials:

Housing—self-extinguishing glass filled nylon, 94V-0 rated; natural color

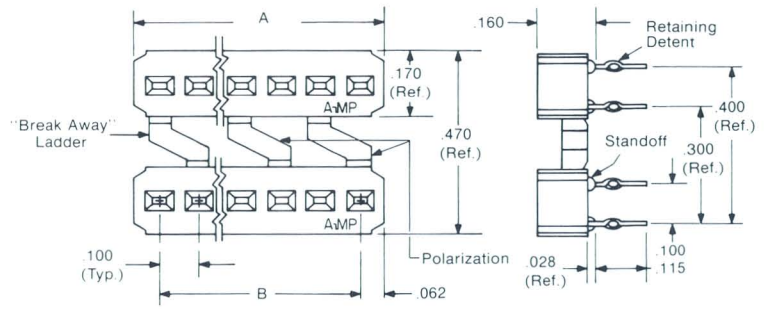
Contact—tin plated beryllium copper

No. of Pos.	Dimensions			Receptacle Part Number	
	A	B	C	In-Line	Staggered Gird
3	.324	.200	2	1-583773-1	1-583774-1
4	.424	.300	3	583773-1	583774-1
5	.524	.400	4	1-583773-2	1-583774-2
6	.624	.500	5	1-583773-3	1-583774-3
7	.724	.600	6	1-583773-4	1-583774-4
8	.824	.700	7	1-583773-5	1-583774-5
9	.924	.800	8	583773-2	583774-2
10	1.024	.900	9	583773-3	583774-3
12	1.224	1.100	11	583773-4	583774-4
13	1.324	1.200	12	583773-5	583774-5
14	1.424	1.300	13	583773-6	583774-6
16	1.624	1.500	15	583773-7	583774-7
18	1.824	1.700	17	583773-8	583774-8
20	2.024	1.900	19	583773-9	583774-9
22	2.224	2.100	21	1-583773-0	1-583774-0

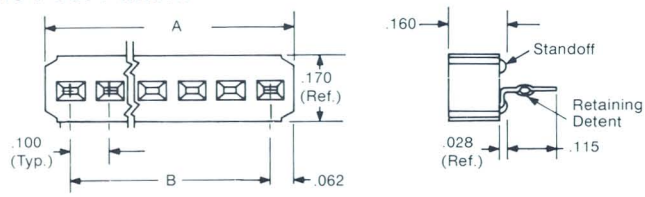
Dual In-Line Post Pattern



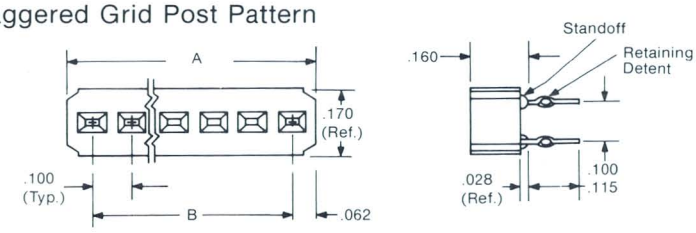
Dual Staggered Grid Post Pattern



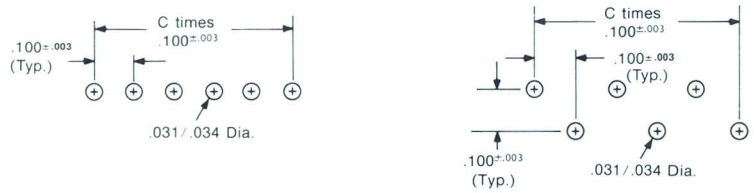
Single In-Line Post Pattern



Single Staggered Grid Post Pattern



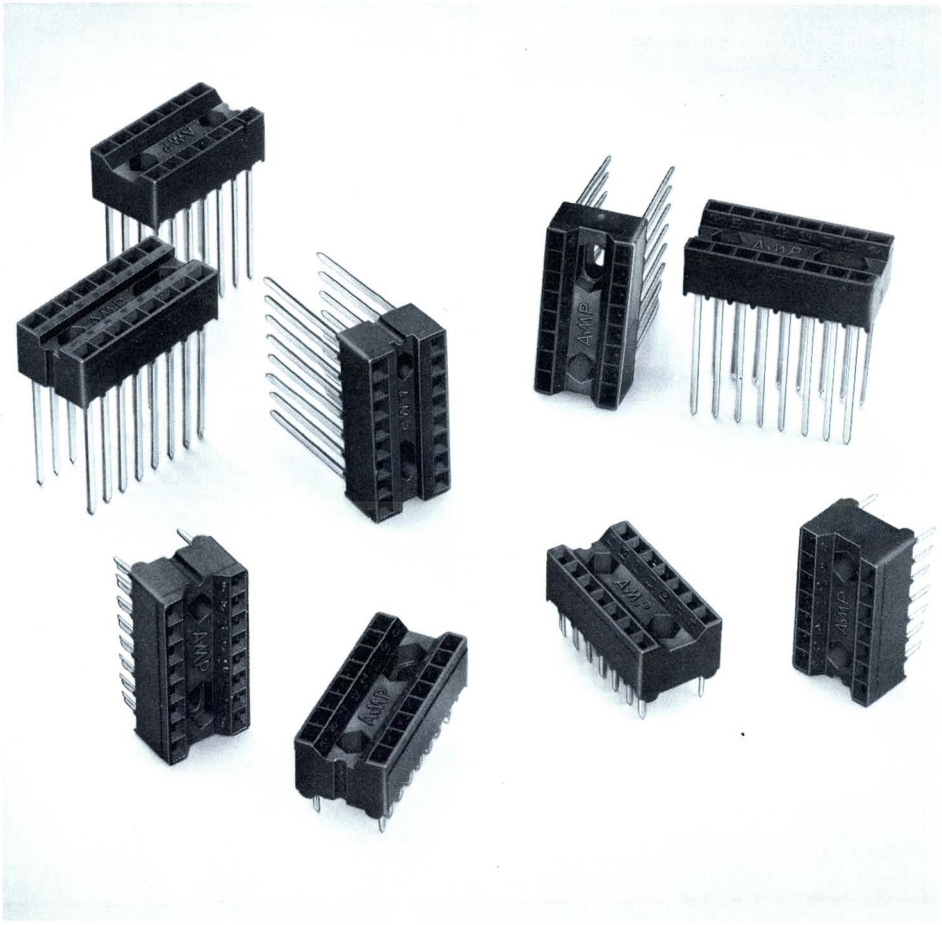
Mounting Dimensions



In-Line Mounting Pattern

Staggered Grid Mounting Pattern

Introduction to Standard Profile DIP Sockets



Features

- Accept 14- and 16-lead IC's
- Accommodate full range of lead sizes, round and/or rectangular
- Compatible with TERMI-POINT clip and wrap-type wiring methods and wave or dip soldering techniques
- Wide, angular lead-in for easy IC insertion
- One-piece spring contacts have anti-overstress design
- Visually polarized housings
- Low cost, high density packaging

All Standard Profile DIP Sockets are designed to meet the requirements of AMP Product Specification No. 108-1007.

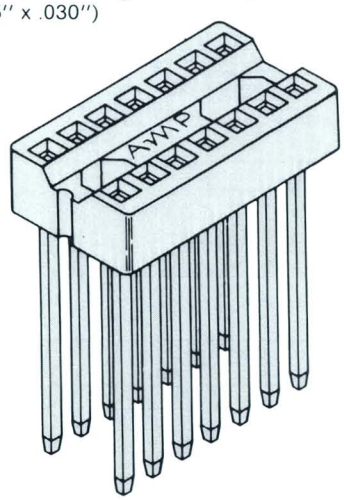
AMP Standard Profile DIP Sockets provide low cost, high density packaging of IC's with 14 or 16 leads. This versatile socket family offers interconnection capabilities compatible with point-to-point wiring and wave or dip soldering techniques and will accept round leads with a .015" max. dia. and/or rectangular leads up to .015" x .030". Inserted leads in the high range cause no overstressing of the socket contacts due to their leaf-spring design and the anti-overstress feature of the housings.

All housings are one-piece, glass-filled nylon bodies and are supplied with contact spacings of .100" x .300". The phosphor bronze or brass contacts are one-piece parts and are pre-gold plated or pre-tinned. Sockets for point-to-point wiring provide a choice of three contact post configurations. One is a .022" x .036" post to accept TERMI-POINT clips and the others are formed channel and solid posts for wrap-type terminations. All three offer post lengths that accept up to three terminations applied by semi-automatic machines or hand tools. Sockets for soldering applications are equipped with solder tail contacts and can be wave or dip soldered to multilayer pc boards up to .125" thick. These sockets also feature housings with stand-offs at the board interface side (bottom) to facilitate cleaning of flux and other contaminants after wave soldering.

Standard Profile DIP Socket Specifications

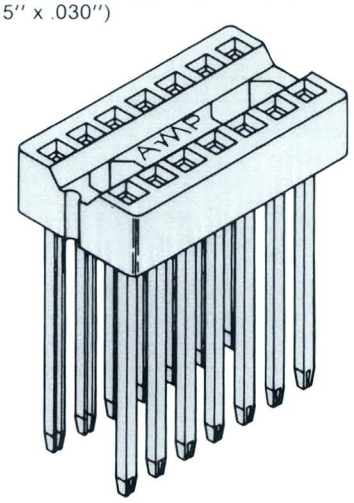
TERMI-POINT Clip Type Posts .022" x .036"

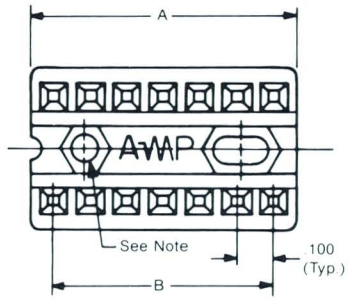
(Accepts rectangular leads up to .015" x .030")

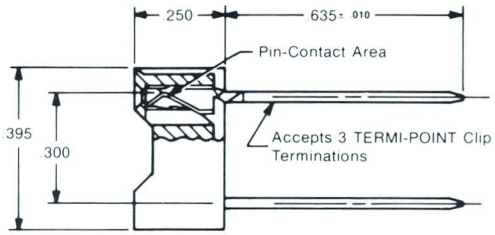


Wrap-Type Posts formed and solid

(Accepts rectangular leads up to .015" x .030")

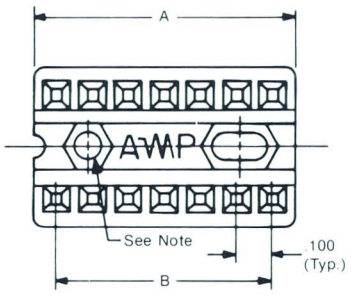


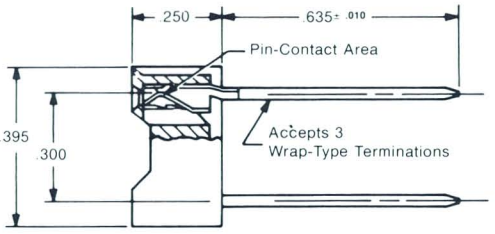


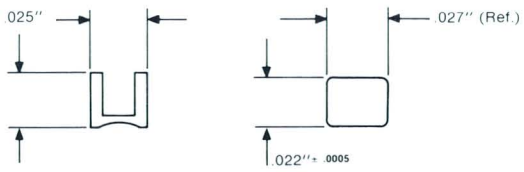


Housing Material: Black glass filled nylon

Number of Positions	Dimensions A	Dimensions B	Contact Material	Contact Finish: Pin-Contact Area	Contact Finish: Post	Socket Part Number
14	.728	.600	Phos. Bronze	Gold	Pre-Gold Flash	1-380845-0
16	.828	.700	Phos. Bronze	Gold	Pre-Gold Flash	1-380852-0







Formed Post* **Solid Post****

Note: The solid post has the same cross section diagonal as the .025" sq. post and is approved for wrap-type applications using the .025" sq. termination technique.

Housing Material: Black glass filled nylon

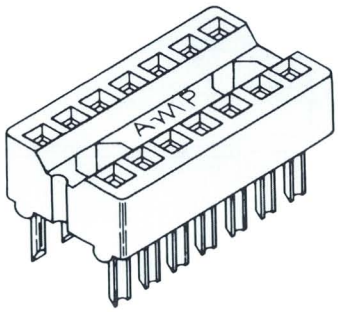
Number of Positions	Dimensions A	Dimensions B	Contact Material	Contact Finish: Pin-Contact Area	Contact Finish: Post	Socket Part Number
14	.728	.600	Phos. Bronze	Pre-Tin	Pre-Tin	1-380846-0*
	.728	.600	Phos. Bronze	Gold	Pre-Gold Flash	1-380846-1*
	.728	.600	Brass	Pre-Tin	Pre-Tin	1-380846-2*
	.728	.600	Brass	Gold	Pre-Gold Flash	1-380846-3*
	.728	.600	Phos. Bronze	Gold	Pre-Gold Flash	1-380863-1**
16	.828	.700	Phos. Bronze	Pre-Tin	Pre-Tin	1-380851-0*
	.828	.700	Phos. Bronze	Gold	Pre-Gold Flash	1-380851-1*
	.828	.700	Brass	Pre-Tin	Pre-Tin	1-380851-2*
	.828	.700	Brass	Gold	Pre-Gold Flash	1-380851-3*
	.828	.700	Phos. Bronze	Gold	Pre-Gold Flash	1-380882-1**

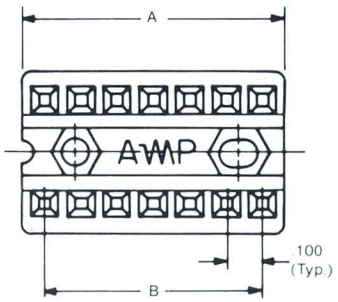
Note: .070±.001 Dia. Mounting Hole for #0-80 Brass Hex Nut, Part No. 27917-1, or .070 Dia. Rivet (to be supplied by customer).

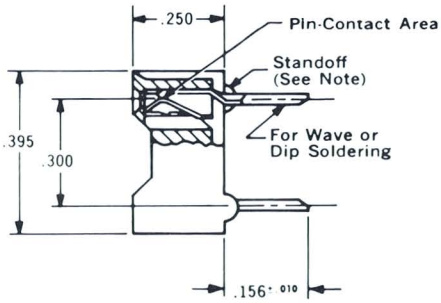
Standard Profile DIP Socket Specifications

Solder Tail

(Accepts rectangular leads up to .015" x .030")







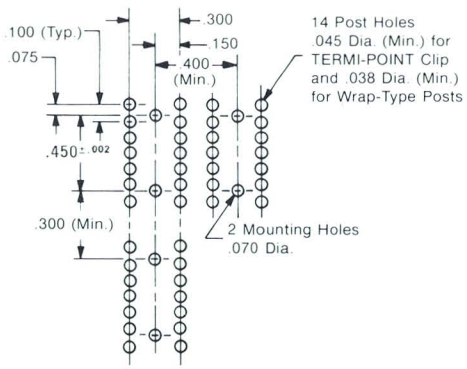
Housing Material: Black glass filled nylon

Number of Positions	Dimensions A	Dimensions B	Contact Material	Contact Finish: Pin-Contact Area	Contact Finish: Post	Socket Part Number
14	.728	.600	Phos. Bronze	Pre-Tin	Pre-Tin	1-380859-1
	.728	.600	Phos. Bronze	Gold	Pre-Gold Flash	1-380859-2
	.728	.600	Brass	Pre-Tin	Pre-Tin	1-380859-3
	.728	.600	Brass	Gold	Pre-Gold Flash	1-380859-4
16	.828	.700	Phos. Bronze	Pre-Tin	Pre-Tin	1-380860-1
	.828	.700	Phos. Bronze	Gold	Pre-Gold Flash	1-380860-2
	.828	.700	Brass	Pre-Tin	Pre-Tin	1-380860-3
	.828	.700	Brass	Gold	Pre-Gold Flash	1-380860-4

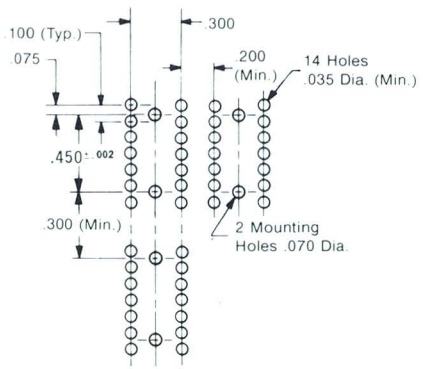
Note: Standoffs are on both sides of socket housings. Solder inserts, 14 pos.—350016-1, 16 pos.—350016-2, must be used on all applications where the soldering of "plated through hole" printed circuit boards is required. Inserts are available upon request.

Mounting Patterns

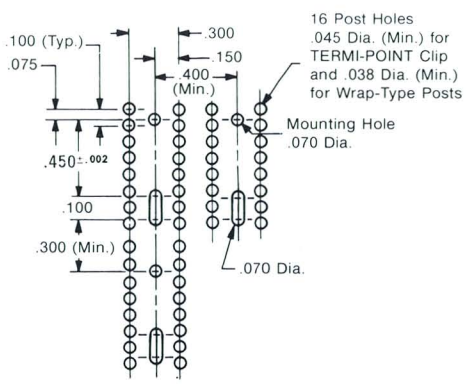
14 Position TERMI-POINT Clip Type and Wrap-Type Posts



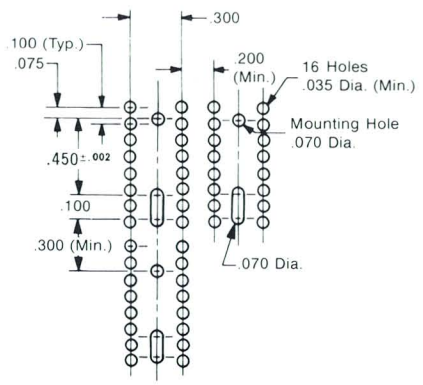
14 Position Solder Tail



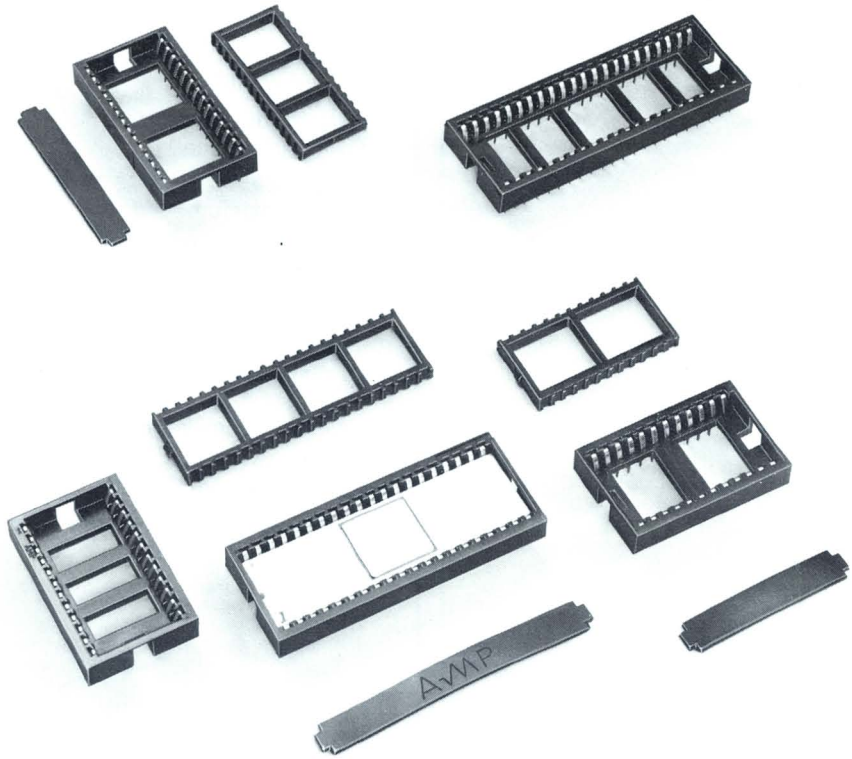
16 Position TERMI-POINT Clip Type and Wrap-Type Posts



16 Position Solder Tail



Introduction to Low Profile Leadless Substrate Sockets



Features

- Lower cost by use of leadless packages which eliminates losses due to bent and broken leads
- Eliminates need to use substrate clips with ceramic devices
- Easy removal and replacement of substrate devices
- Holddown straps available for high vibration or shock environments
- Choice of tin-lead or gold inlay contacts
- Superior contact design with wiping action and no solder wicking problems
- Adapters allow leaded .600" [15.24 mm] centerline DIP devices to be used in 24, 28, and 40 position leadless connectors. Conversion can be accomplished at any time, in any sequence
- Two hybrid substrates may be installed vertically by using an auxiliary adapter
- DIP devices can be used without adapters by simply trimming off the leads in "dead bug" or "live bug" fashion

AMP Low Profile, Leadless Substrate Sockets accept side metallized leadless ceramic substrates. These versatile sockets can be supplied with an adapter for accepting leaded substrates in most sizes. An optional holddown is also available. Contacts are arranged on .100" x .600" [2.54 mm x 15.24 mm] centers, in a housing less than .250" [6.35 mm] high. They are available in 24, 28, and 40 position sizes.

The connector housings are manufactured of glass-filled polyester, which offers excellent dimensional stability and resistance to distortion at high temperatures, plus superior moisture resistance and electrical-dielectric properties. For special applications, the housings can be supplied in glass-filled polyester material having a 94V-0 rating.

Contacts feature a stored-energy design which assures reliable, uniform connections and affords easy insertion and extraction. Contacts provide true wiping engagement and are designed to eliminate solder wicking problems. Contact force is very high for this connector due to the use of stainless steel to provide spring action over a broad range of substrate widths. Contacts are available with tin-lead plating all over, or with gold inlay in the contact area and dual sided copper alloy 725 on the solder tails.

AMP pluggable substrate sockets are designed to assure electrically reliable connections while providing a low cost method of high density packaging. The connectors perform well in a broad temperature range, have low insertion force and maintain a low contact resistance in rugged environments. AMP's line of substrate sockets provides you with cost savings . . . by design.

Low Profile Leadless Substrate Socket Specifications

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

Characteristics
(AMP Specification
108-16007)

.600" [15.24 mm]
Centerline
Connectors

Materials

Housing & Optional Adapter: Glass-filled polyester

Holddown Strap (optional): polypropylene

Contacts: stainless steel with tin-lead over copper plating all over, or with gold inlay on contact area and dual sided copper alloy 725 on the solder tails.

Physical

Contact force: Depends on substrate width

Substrate thickness: .080" [2.03 mm], nominal

Mating force: .4 lb. [1.78 N] per contact, maximum

Unmating force: .05 lb. [0.22 N] per contact, minimum

Electrical

Contact resistance:
Gold plated—40 milliohms, maximum
Tin plated—50 milliohms, maximum

Insulation resistance: 500 megohms, minimum

Dielectric withstanding voltage: 375 volts, 60 Hz, 1 minute

Environmental

Operating temperature: −65°C to +125°C

Thermal shock: 5 cycles from −65°C to +125°C, mate and unmate at each extreme on last cycle

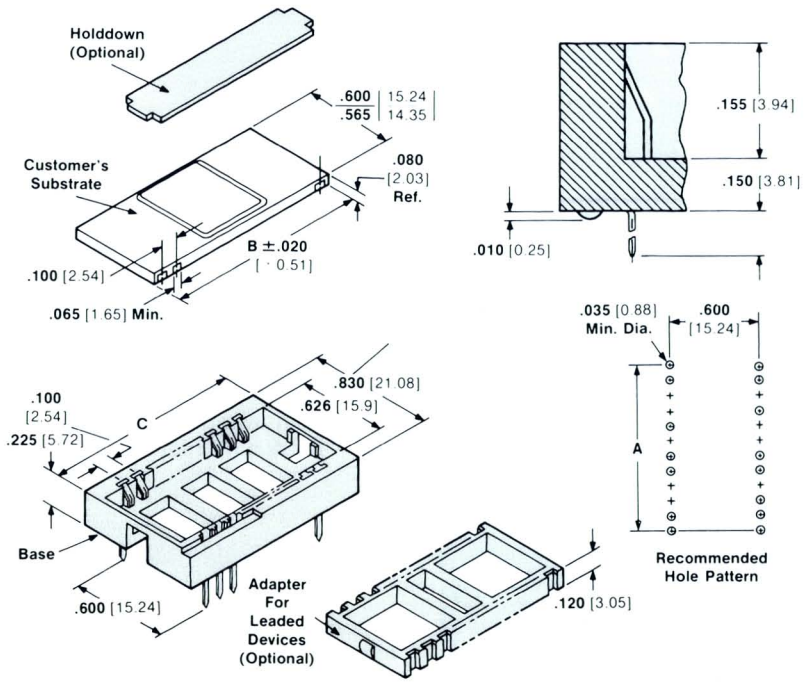
Vibration: AMP Specification 109-21, Condition A, 10-55-10 CPS

Shock: 18 shocks of 100 G (peak sawtooth 6 millisecond duration) per AMP Specification 109-26, Condition I

Humidity: 96 hours at 40°C and 90–95% RH per AMP Specification 109-23, Method II, Condition A

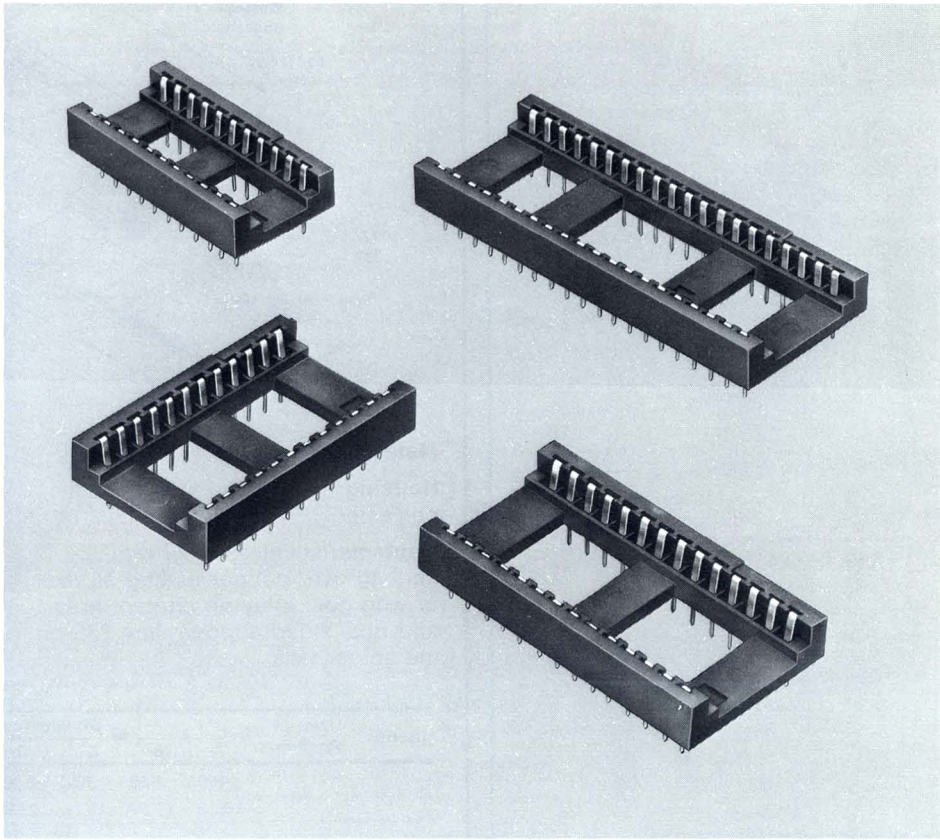
Durability: Mate and unmate 100 times at approximately 600 cycles per hour

Industrial Gas: 24 hour exposure to SO_2



No. of Positions	Dimensions			Contact Finish	Part Numbers		
	A	B	C		Connector	Holddown	Adapter
24	1.100	1.200	1.315	Tin	1-485181-1	485191-4	485194-1
	27.94	30.48	33.4	Gold	1-485181-2		
28	1.300	1.400	1.515	Tin	1-485182-1	485191-8	485198-1
	33.02	35.56	38.48	Gold	1-485182-2		
40	1.900	2.000	2.115	Tin	1-485169-1	485191-0	485190-1
	48.26	50.8	53.72	Gold	1-485169-2		

Introduction to 400 and 600 Series Leaded Substrate Sockets



Features

- True low profile
- 22, 24, 28, 40 positions
- Superior contact design exhibiting wiping action and eliminating solder wicking problems
- A choice of tin-lead or economical gold inlay plating
- Glass-filled polyester housings
- Excellent contact pressure and retention
- Minimal insertion and withdrawal forces
- Lead burrs will not damage contacts
- Generous lead-in chamfers for easy installation of distorted leads

AMP's 400 and 600 Series Leaded Substrate Sockets are one-piece DIP sockets for leaded substrates in the dual in-line configuration. The 400 Series socket has contacts arranged on .100" x .400" [2.54 mm x 10.16 mm] centers and comes in a 22 position size. The 600 Series socket has contacts arranged on .100" x .600" [2.54 mm x 15.24 mm] centers and comes in 24, 28, and 40 position sizes.

The socket housings are manufactured of glass-filled polyester, which offers excellent dimensional stability and resistance to distortion at high temperatures, plus superior moisture resistance and electrical-dielectric properties. For special applications, the housings can be supplied in glass-filled polyester material having a 94V-0 rating.

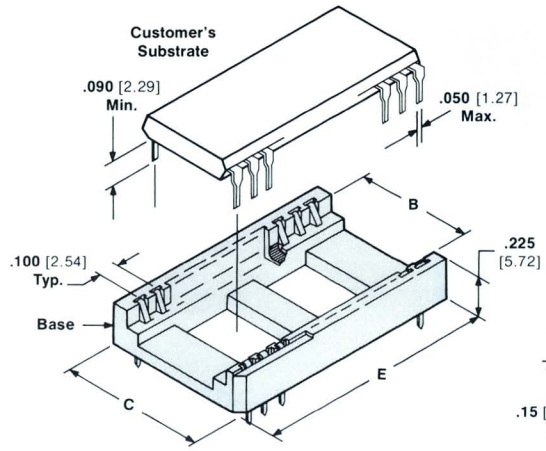
Contacts feature a stored-energy design which assures reliable, uniform connections, and affords easy insertion and extraction. Contacts provide true wiping engagement, and are designed to eliminate solder wicking problems. Contact force is very high for this socket due to the use of stainless steel to provide spring action over a broad range of lead thicknesses. Contacts are available with tin-lead plating all over, or with gold inlay in the contact area and dual sided copper alloy 725 on the solder tails.

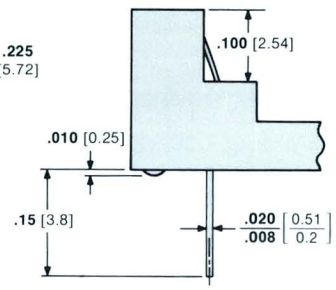
These AMP pluggable substrate sockets are designed to assure electrically reliable connections while providing a low cost method of high density packaging. The sockets perform well in a broad temperature range, have low insertion force, and maintain low contact resistance in rugged environments. AMP's line of substrate sockets provides you with cost savings . . . by design.

400 and 600 Series Leaded Substrate Socket Specifications

Dimensioning:
1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

Characteristics

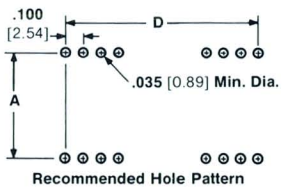




Materials

Housing: glass-filled thermoplastic polyester

Contacts: stainless steel with tin-lead over copper plating all over, or with gold inlay on contact area and dual sided copper alloy 725 on the solder tails



Recommended Hole Pattern

Series	No. of Positions	Dimensions A	B	C	D	E	Contact Finish	Part Number
400	22	**.400**	**.426**	**.630**	**1.000**	**1.215**	Tin-Lead/Copper	**1-485209-1**
		10.16	10.82	16	25.4	30.86	Gold Inlay & Alloy 725	**1-485209-2**
600	24				**1.100**	**1.315**	Tin-Lead/Copper	**1-485201-1**
					27.94	33.4	Gold Inlay & Alloy 725	**1-485201-2**
	28	**.600**	**.626**	**.830**	**1.300**	**1.515**	Tin-Lead/Copper	**1-485202-1**
		15.24	15.9	21.08	33.02	38.48	Gold Inlay & Alloy 725	**1-485202-2**
	40				**1.900**	**2.115**	Tin-Lead/Copper	**1-485203-1**
					48.26	53.72	Gold Inlay & Alloy 725	**1-485203-2**

Physical

Contact force: 175 g [1.72 N] minimum with .008″ [0.2 mm] lead thickness

Mating force: 6 lb. [2.67 N] per contact, maximum

Unmating force: .2 lb. [0.89 N] per contact, minimum

Electrical

Contact resistance:
Gold inlay—15–20 milliohms, average
Tin-lead plated—35–45 milliohms, average

Insulation resistance: 1000 megohms, minimum

Dielectric withstanding voltage: 375 volts at 60 Hz

Adjacent contact capacitance: 1 picofarad, maximum, at 1000 Hz

Environmental

Operating temperature: −65°C to +125°C

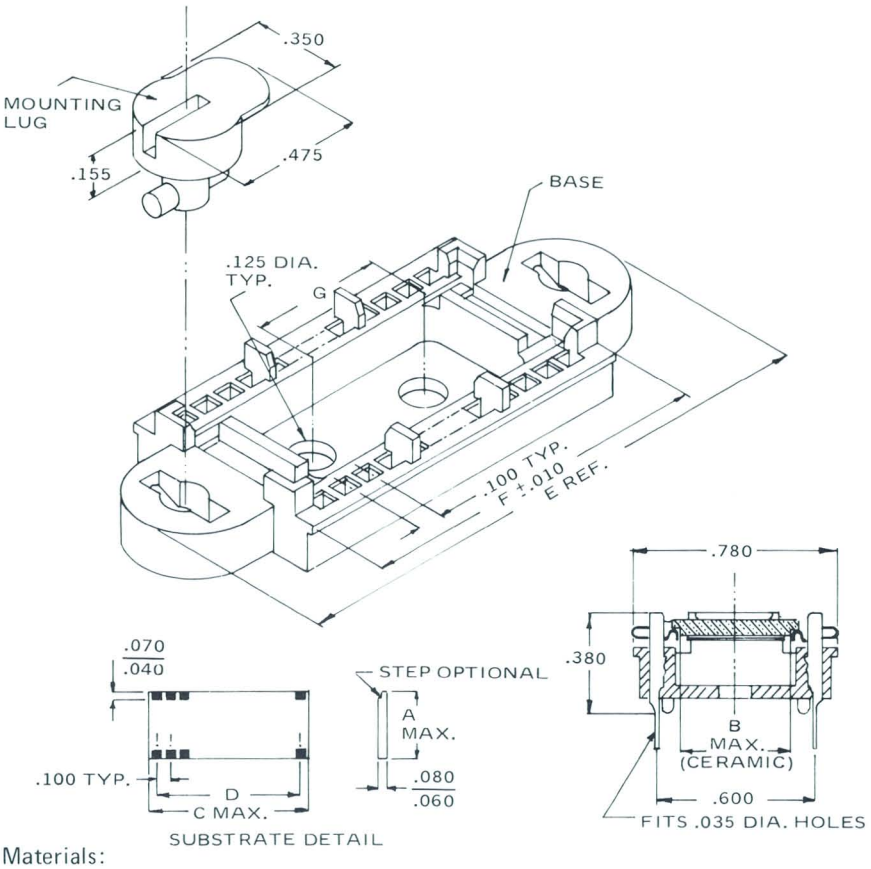
Humidity: 96 hours at 40°C, 95% RH

Durability: 100 insertion-extraction cycles

Industrial Gas: 24 hour exposure to SO_2

Salt Spray: MIL-STD-202, Method 101C

Face Contact Connectors; 24-, 28- and 40-Position (for Face Metallized, Leadless Substrates)



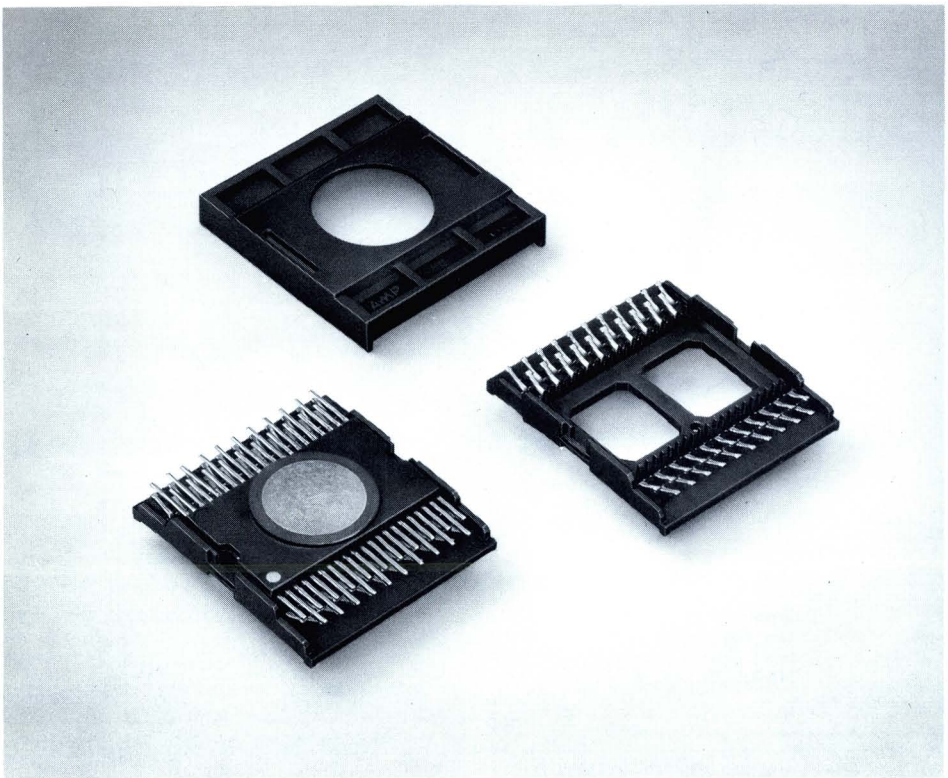
Materials:

Base and Hold Down (Mounting Lug) – Glass-Filled Thermoplastic, Black

Contacts – Stainless Steel, Gold or Bright Tin Plated

No. of Dual Positions	Substrate Dimensions				Connector Dimensions			Contact Finish	Connector Part No.
	A	B	C	D	E	F	G		
24	.510	.420	1.210	1.100	2.060	1.350	.500	Tin	485177-1
								Gold	485177-2
28	.510	.420	1.410	1.300	2.260	1.550	.600	Tin	485178-1
								Gold	485178-2
40	.510	.420	2.020	1.900	2.860	2.150	1.300	Tin	1-485115-1
								Gold	1-485115-2
	.520	.480	2.040	1.900	2.860	2.150	1.300	Tin	1-485114-1
								Gold	1-485114-2

NOTE: Mounting lug, part no. 485141-9, must be ordered separately. Two are required for each connector assembly.



Low Profile, 42 Position, Leaded Substrate Connector

The AMP Low Profile, 42 Position, Leaded Substrate Connector is a two-piece assembly for leaded substrates having 42 unformed leads. The lid positively locks to the base to give an overall height of less than .250" [6.35 mm].

The connector housings are manufactured of glass-filled polyester, which offers excellent dimensional stability and resistance to distortion at high temperatures, plus superior moisture resistance and electrical-dielectric properties. For special applications, the housings can be supplied in glass-filled polyester material having a 94V-0 rating.

Contacts feature a stored-energy design which assures reliable, uniform connections and affords easy insertion and extraction. They provide true wiping engagement and are designed to eliminate solder wicking problems. Contact force is very high for this connector. Contacts are available with tin or gold plating.

These substrate connectors are designed to assure electrically reliable connections while providing a low cost, labor-saving method of high density packaging. The connectors perform well in a broad temperature range, have zero insertion force, and maintain a low contact resistance in rugged environments. AMP's line of substrate connectors provides you with cost savings . . . by design.

Features

- Eliminates pre-forming of device leads.
- Easy removal and replacement of substrate device. Device is not plugged into sockets.
- Reduces possibility of static charge damage to device during soldering, cleaning, installation, and removal.
- Hole pattern of connector is identical to manufacturer's suggested lead bend pattern.
- Positive wiping action of connector contacts on leads of device.
- "Zero-Entry" design — contact pressure applied when lid is assembled.
- Polarized — device may only be installed properly.

Note: All values in brackets are metric equivalents.

Specifications subject to change. Consult AMP Incorporated for latest design specifications.

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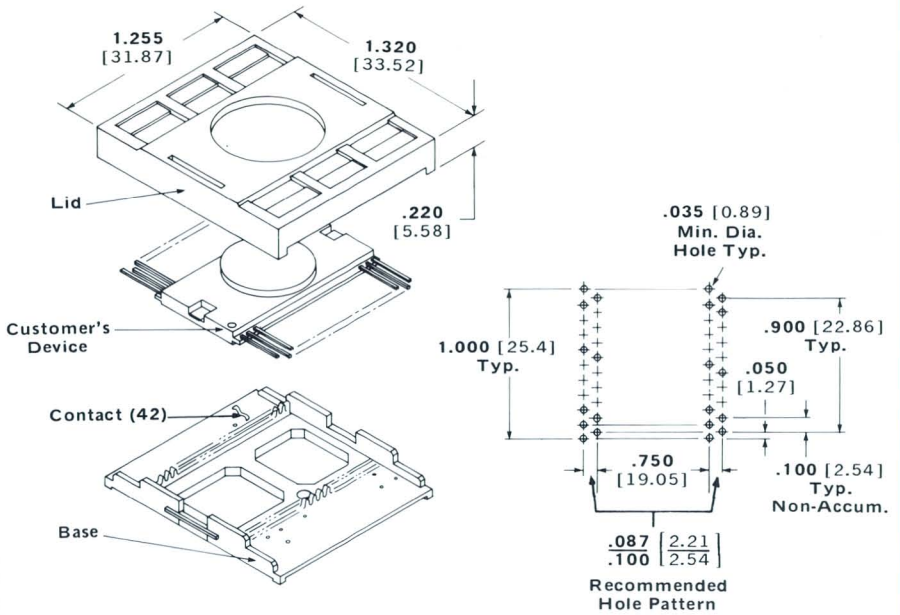


Materials

Housing and lid: Glass-filled polyester

Contacts: Beryllium copper with gold or tin plating

Part Numbers

Base:
with tin plated contacts, 1-485164-1
with gold plated contacts, 1-485164-2

Lid: 485165-9

Characteristics
(AMP Specification 108-16006)

Physical

Contact force: 100 g [0.98 N] minimum

Mating force: 24 lb. [106.8 N] for lid closure, maximum

Electrical

Contact resistance:
Gold plated – 20 milliohms, average
Tin plated – 40 milliohms, average

Insulation resistance: 500 megohms, minimum

Dielectric withstanding voltage: 375 volts, 60 Hz, 1 minute

Environmental

Operating temperature: -65°C to +125°C

Thermal shock: 5 cycles from -65°C to +125°C, mate and unmate at each extreme on last cycle per AMP specification 109-22

Vibration: 10 to 55 Hz with acceleration of .06" [1.55 mm] or 10 G per AMP specification 109-21, Condition A

Shock: 18 shocks of 100 G (peak sawtooth 6 millisecond duration) per AMP specification 109-26, Condition C

Humidity: 96 hours at 40°C and 90-95% RH per AMP specification 109-23, Method II, Condition A

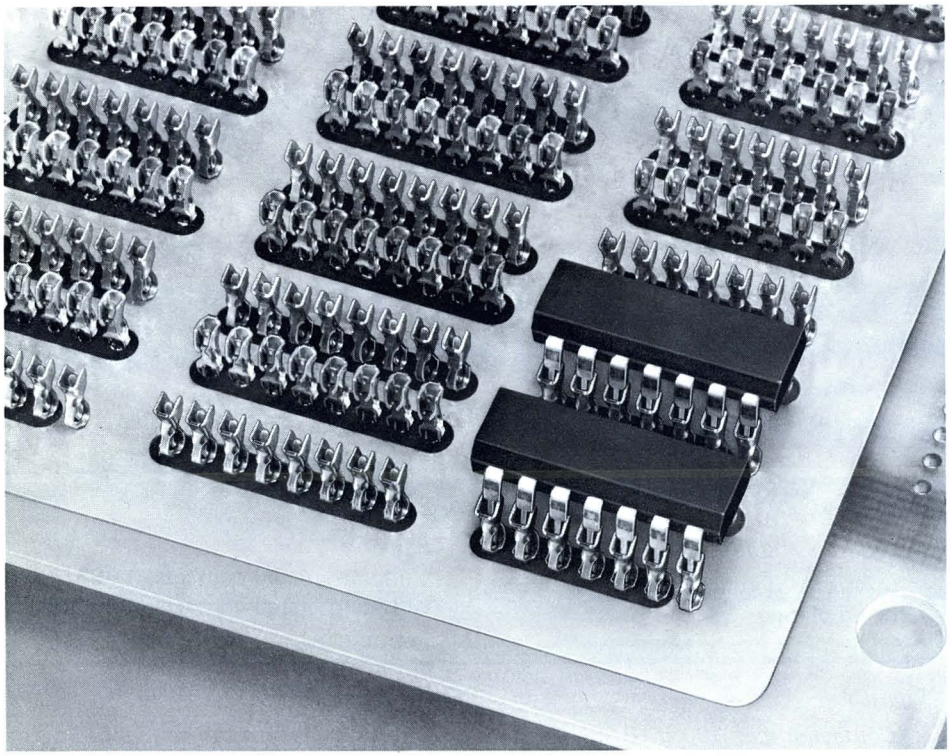
Durability: Mate and unmate 50 times

Thermal aging: 185°F [85°C] for 1000 hours

Notes:

1. All dimensions in inches and millimetres. Values in brackets are metric equivalents.
2. Controlling dimensions: Inch.

Contact AMP Incorporated for literature on other sizes and configurations of leaded and leadless substrate connectors.



Integrated Circuit Receptacles

AMP IC Packaging Receptacles are designed to provide low cost, high density connections plus complete packaging flexibility for today's widely varied integrated circuit devices. These miniature receptacles are available in one-piece solder type and two-piece post type and offer a choice of interconnection capabilities that permit the use of the latest soldering and point-to-point wiring techniques. In addition to universally accepting numerous IC configurations, they accept a full range of round and flat IC leads interchangeably and accommodate pc boards .062" to .125" thick.

All IC receptacles are stamped and formed from top quality stock and are supplied with a wide selection of finishes and plating thicknesses. They also incorporate many design features to assure optimum packaging reliability. The receptacle spring contact employs an anti-overstress design which maintains excellent contact and positive retention with all IC lead sizes and configurations, despite lead interchanging and repeated insertions and extractions. A wide .054" x .054" contact lead-in also is designed into the receptacle spring to facilitate IC insertion.

AMP's one-piece, solder type receptacles are available with and without solder resist and are completely compatible with wave and dip soldering methods. Their spring fit design allows the receptacles to be self-retaining when inserted into a pc panel and keeps the receptacles rigid during the soldering operation.

Two-piece, post type receptacles are furnished with either a .022" x .036" post which accepts TERMI-POINT clips or a .022" x .027" post for accepting miniature wrap type terminations. The two-piece receptacle also is available with a solderable post designed for wave or dip soldering techniques.

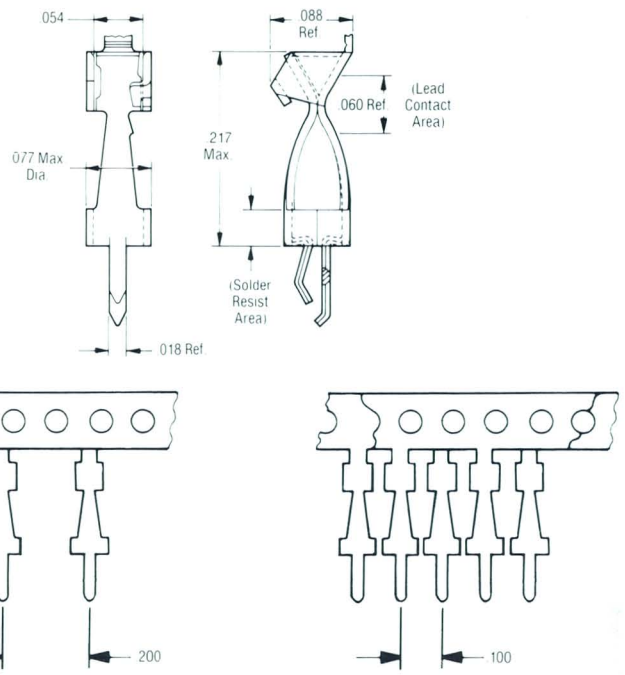
AMP supplies all IC Packaging Receptacles in strip form for their high-speed insertion into panels. They are contained on carrier strips on .100" and .200" centerlines and are "gang" inserted into panels at volume production rates using applicable hand tools or automatic machines.

Features

- Complete packaging flexibility for widely varied IC designs.
- Compatible with wave or dip soldering methods and .022" x .036" TERMI-POINT clip or miniature wrap type wiring technologies.
- Contact leaf-spring design permits interchangeable acceptance of the large size IC leads . . . without overstressing.
- Wide contact lead-in facilitates IC insertion.
- Accepts standard DIP leads.
- Wide selection of finishes and plating thicknesses.
- "Gang" insertion method with applicable hand tools or automatic machines assures lowest overall applied cost.

One-Piece IC Receptacles, Solder-Type

Receptacles



Material: Phosphor bronze per QQ-B-750
Finish: bi.000100 (min.) bright tin per MIL-T-10727 or gold flash over .000050 (min.) nickel over entire receptacle with .000030 (min.) gold on lead contact area. Gold plating per MIL-G-45204, nickel plating per QQ-N-290.

Centerline Spacing	Board Thickness	Finish	Packaging			Part Number
			Receptacles Per Strip or Reel	Strips Per Box	Receptacles Per Box	
.100	.062	Tin	3	1667	5001	7-116141-4
			4	1250	5000	5-116141-2
			5	1000	5000	4-116141-0
			6	834	5004	5-116141-4
			7	715	5005	3-116141-9
			8	625	5000	3-116141-8
			9	556	5004	5-116141-9
			11	455	5005	3-116141-0
			12	417	5004	4-116141-1
			13	385	5005	4-116141-8
			14	358	5012	3-116141-5
			15	334	5010	7-116141-0
			16	313	5008	3-116141-7
			20	250	5000	7-116141-4
			24	209	5016	4-116141-2
			15,000	—	—	4-116141-3
		Gold	4	1250	5000	7-116141-2
			7	715	5005	7-116141-1
			8	625	5000	5-116141-1
			9	556	5004	6-116141-9
			12	417	5004	4-116141-9
			14	358	5012	5-116141-0
			20	250	5000	6-116141-2
	.093	Tin	4	1250	5000	6-116141-4
			5	1000	5000	6-116141-5
			9	559	5004	6-116141-6
			11	455	5005	6-116141-3
			13	385	5005	6-116141-7
			14	358	5012	7-116141-5
			15	334	5010	6-116141-8
		Gold	20	250	5000	3-116141-3
			50	100	5000	4-116141-6
.200	.062	Tin	5	1000	5000	4-116141-4
			7	715	5005	5-116141-8
			22	228	5016	6-116141-1
			15,000	—	—	3-116141-2
		Gold	15,000	—	—	3-116141-6
	.093	Tin	15,000	—	—	4-116141-7
		Gold	15,000	—	—	3-116141-4

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One-Piece IC
Receptacles, Solder-Type (cont'd)

Testing

AMP's One-Piece Solder Type IC Receptacles were tested for resistance and for their lead retention, engagement and separation capabilities to assure that they meet all of industry's requirements for reliability within these performance categories. The results of these tests are tabulated as follows.

Insertion/Withdrawal Test (using 14-lead DIP)

Force in Ounces (per receptacle)	
Insertion	Withdrawal
3.54 Min.	1.89 Min.
5.20 Max.	4.17 Max.
4.19 Avg.	2.66 Avg.

NOTE: Max. allowable insertion force per receptacle is 12 oz.; min. allowable withdrawal force per receptacle is 0.5 oz.

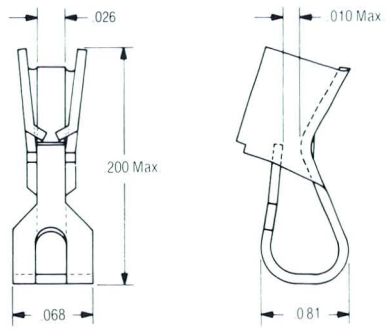
Termination Resistance Tests—Testing Sequence: Initial Resistance Check; Steam (1 hr.); Resistance Check; Ammonium Polysulfide (15 min.); Final Resistance Check.

Resistance in Milliohms

DIP Lead Finish	Receptacle Finish	Resistance	
		Initial	Final
		4.4 Low	4.4 Low
Gold	Gold	10.1 High	9.9 High
		6.28 Avg.	6.72 Avg.
		4.1 Low	4.4 Low
Gold	Tin	8.5 High	8.7 High
		6.03 Avg.	6.62 Avg.
		2.9 Low	2.9 Low
Tin	Gold	6.8 High	7.4 High
		4.34 Avg.	4.78 Avg.
		2.9 Low	2.9 Low
Tin	Tin	5.8 High	6.4 High
		4.07 Avg.	4.23 Avg.

Two-Piece IC Packaging
Receptacles, Solder- and Post-Types

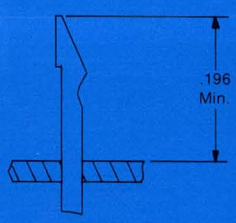
Spring Contacts



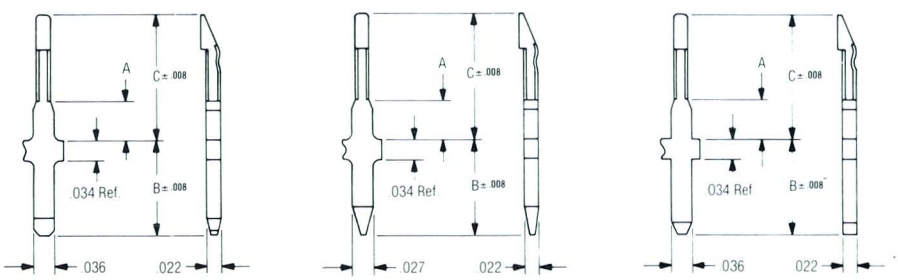
Material: Beryllium Copper per QQ-C-533
Finish: .000005 (min.) gold over .000050 (min.) nickel. Gold plating per MIL-G-45204, nickel plating per QQ-N-290.

NOTE: Spring contacts are supplied on carrier strips with a .200" centerline spacing between contacts. Strips are pre-cut for application to posts using AMP hand tool No. 265060.
4 per strip—Part No. 1-116078-6
Also
15,000 per reel—Part No. 1-116078-5

Posts



Height Required Above P.C. Board



TERMI-POINT Clip Type Post (.022 x .036)

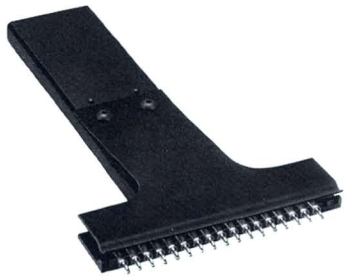
Wrap-Type Post (.022 x .027)

Solder-Type Post (.022 x .036)

Material: Brass
Finish: .000005 (min.) gold over .000100 (min.) nickel over entire post except tip which is .000030 (min.) gold. Gold plating per MIL-G-45204, nickel plating per QQ-N-290.

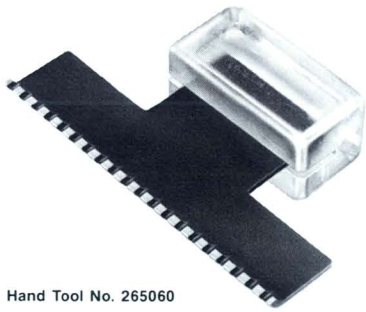
Post Configuration	Dimensions			Board Thickness	Part No.	
	A	B	C		Strip Form	Loose Piece
Solder-Type	.072	.130	.274	.062	116044-2	116044-3
TERMI-POINT Clip Type	072	.560	.274	.062	116077-2	116077-3
	.138	.560	.323	.125	116077-8	116077-9
Wrap-Type	.072	.560	.274	.062	116079-5	116079-6
	.138	.560	.323	.125	1-116079-7	1-116079-8

NOTE: Recommended board hole size for all posts: .0505 .001 dia. (1.3 mm drill. Ref.)



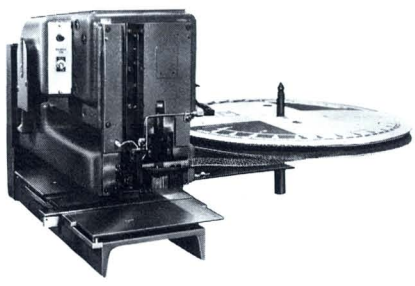
Hand Tool Part No. 265293

This AMP hand tool is especially designed for "gang" inserting IC packaging receptacles into pc boards containing pre-drilled holes. It is an easy-to-use, inexpensive device which provides the advantages of fast, easy application and volume production at the lowest possible cost. The operator loads the strips into the tool, which can hold up to 20 receptacles at a time, and "gang" inserts them into the board. The pre-notched carrier strips remain on the receptacles during soldering to assure proper alignment and center-to-center spacing and are merely "snapped" off to complete the assembly.



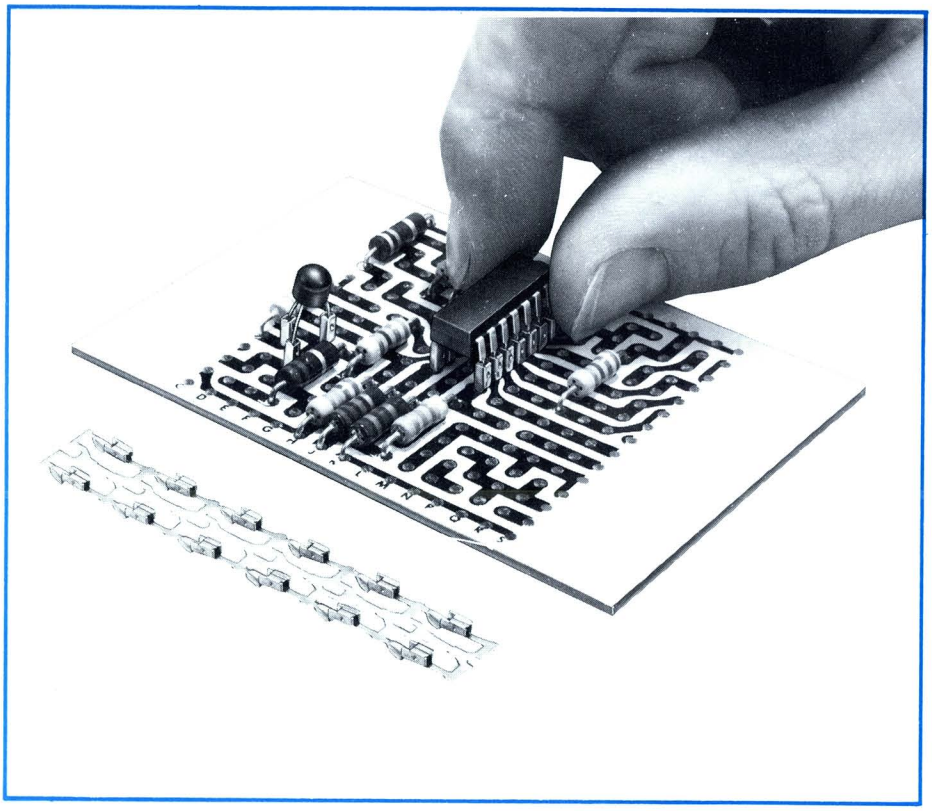
Hand Tool No. 265060

This AMP hand tool is especially designed for installing spring contacts onto board mounted IC receptacle posts. It is an easy-to-use, inexpensive device which provides the advantages of fast, easy application and volume production at the lowest possible cost. The operator loads the strips into the tool and "gang" inserts the contacts onto the posts. The pre-notched carrier strips are merely "snapped" off to complete the installation. The tool is available in three sizes for simultaneously applying up to 20 contacts.



AMP Post Insertion Machine

This semi-automatic bench mounted machine is specifically designed to provide a reliable, economical means of inserting IC receptacle posts into .062" to .125" thick boards. It is capable of inserting reel-stored, strip form posts into boards containing pre-drilled holes of virtually any pattern . . . and with hole densities to .100" centers. The machine includes many design features that contribute to its efficiency and ease of operation. As a result, net production rates of up to 4,000 insertions per hour can be attained under sustained operation.



AMP Dual In-Line Package (DIP) and Transistor Receptacles

AMP DIP and Transistor Receptacles provide a reliable, economic method for meeting the pluggability requirements of these components. These two types of receptacles, while very similar in design, have distinct differences within their contact areas to enhance their overall performance.

The receptacles for DIP leads are produced on a "2-up" strip and have a contact area specially designed to accept leads .008" to .015" thick by .025" wide. The receptacles for transistor leads are produced in single strip form and are available with contact areas designed to accept various lead sizes, including leads .016" to .019" in diameter and .025" in diameter as well as .008" to .015" thick by .025" wide leads and .025" sq. leads. Both receptacle types have a long life expectancy and are capable of withstanding repeated lead insertions and extractions because of a built-in anti-overstress feature. Also incorporated into their design is the ability to prevent solder from entering the contact area. This is due to the centerline of the box receptacle being offset .030" from the centerline of the board hole.

AMP's DIP and Transistor Receptacles will fit .062" thick, one-sided pc boards made of XXXP material and containing punched or drilled holes. For low cost, high-speed insertion of receptacles, AMP has a complete family of staking equipment to meet all production needs. Included are: a single applicator press with a 4,000 per hour cycle rate capable of handling a 6" sq. (max.) pc board; and a numerically controlled module strip insertion machine which operates six applicators at a time and can apply up to 72,000 receptacles an hour, producing two completed pc board module strips with each program run.

FEATURES

- Receptacle designs for both transistors and DIP's
- Wide range of lead sizes accepted
- Lowest installed cost
- High speed insertion machines available for all production needs
- Excellent electrical and mechanical characteristics
- Long life — withstands repeated insertion and extraction of leads
- Built-in anti-overstress design
- Install in .062" thick, one-sided pc boards made of XXXP material and containing punched or drilled holes

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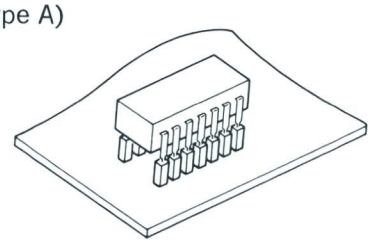
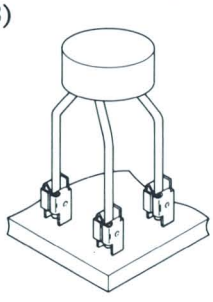
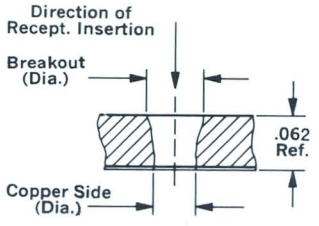
Specifications

DIP Lead Receptacle
(Type A)

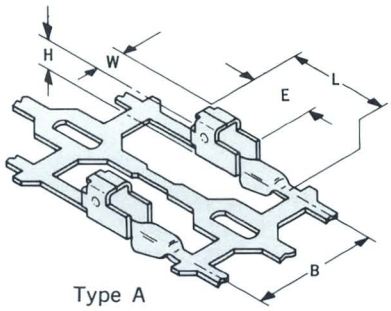


Transistor Lead Receptacle
(Type B)

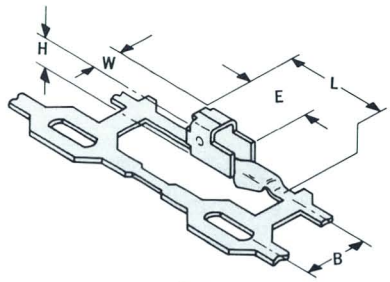




P.C. Board Hole Parameters



Type A

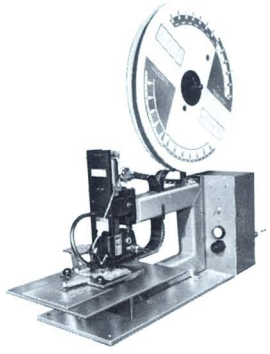


Type B

Part Number	Type	Lead Range	P.C. Board Hole Design			Stock Thickness	Material	W	L	E	B	H
			Punched		Drilled							
			Copper Side	Break Out	Dia.							
61949-1	A	.015/.008 x .025	.045/.040	.055/.050	.051/.049	.006	Pre-Tin Phosphor Bronze	.070	.265	.140	.300	.065
61954-1	B	.015/.008 x .025 or .016-.019 Dia.	.050/.046	.060/.055	.053/.051	.006	Pre-Tin Phosphor Bronze	.070	.265	.140	.150	.065
61989-1	B	.015/.008 x .025	.050/.046	.060/.055	.053/.051	.006	Pre-Tin Phosphor Bronze	.070	.265	.140	.150	.065
62037-1†	B	.025 x .025 or .025 Dia.	.050/.046	.060/.055	.053/.051	.006	Pre-Tin Phosphor Bronze	.070	.265	.140	.150	.065

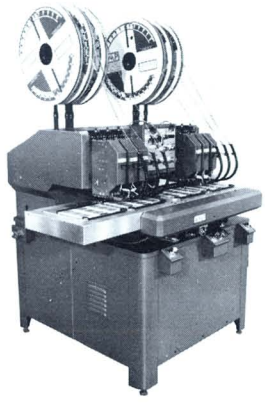
†No dimple.

Application Tooling



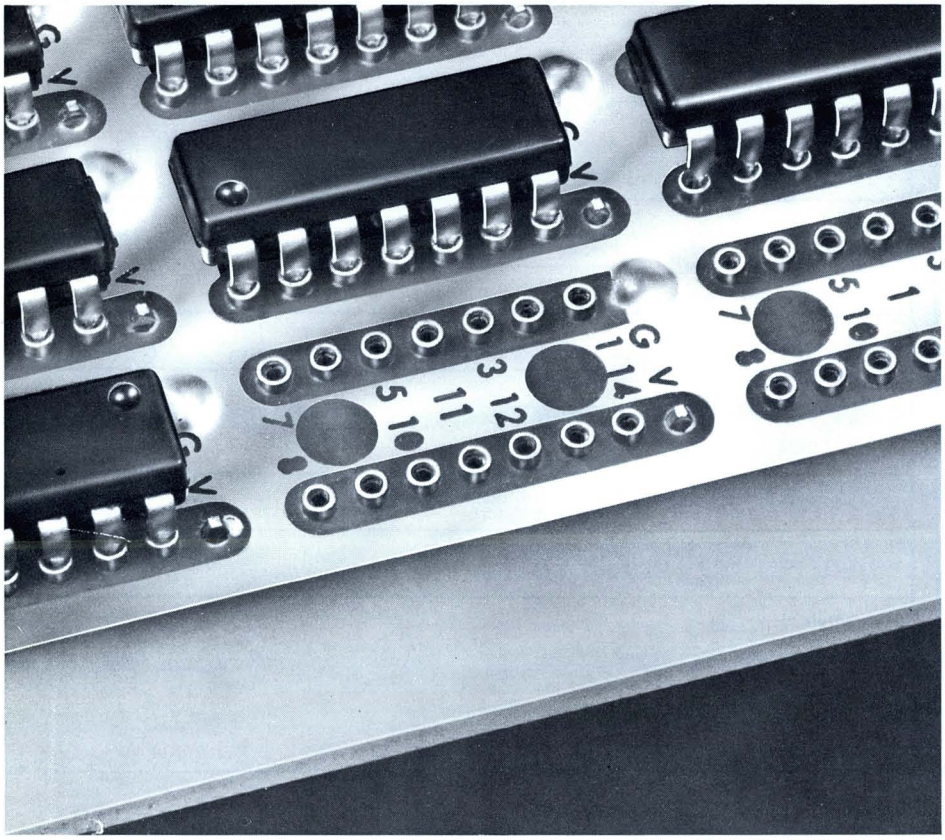
Single Press Applicator

This machine uses a single, modified applicator and a specially designed fixture for holding a 6" maximum square pc board. The machine is customized for each application. It has a cycle rate of 4,000 an hour and is ideally suited for all intermediate production needs.

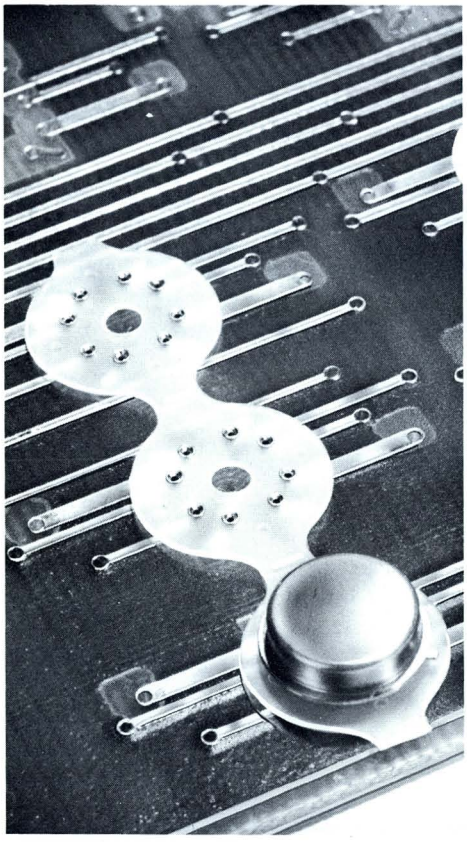


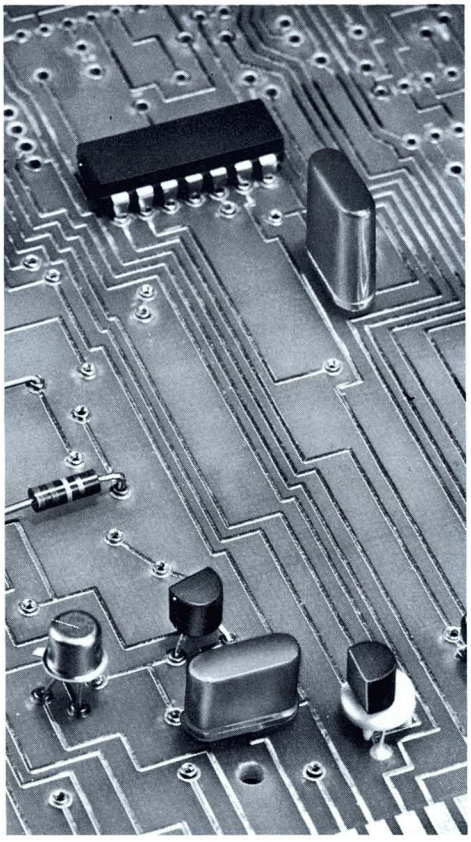
Numerically Controlled Module Strip Insertion Machine

This automatic unit inserts reel-stored receptacles into pc board module strips using six applicators simultaneously. Numerically controlled, it will produce two completed pc board module strips during each program run and requires an operator to only load and unload the module strips. The applicators are designed for easy removal and simple realignment. Also, with a cycle rate of 6,000 an hour per applicator, it can apply up to 72,000 receptacles an hour with all six applicators operating.



Miniature Spring Socket





Features

- Provides easy pluggability.
- Integrated circuit modules or component parts may be used.
- Meets gold plating specifications of MIL-G-45204, Type II and tin plating specifications of MIL-T-10727, Type I.
- Insertion and withdrawal forces specified for either integrated circuit modules or component parts. Consult AMP product specification 108-14008.
- Both gold and tin plated sockets provide excellent soldering capability.
- Small head diameters permit close center-to-center mounting.
- Spring loaded punches available for sockets with knockout bottoms.
- Special contacts available for crimp-to-wire applications.
- High speed insertion. See application tooling on page 4.
- Specials available. Contact AMP Incorporated.

Component Lead Spring Socket

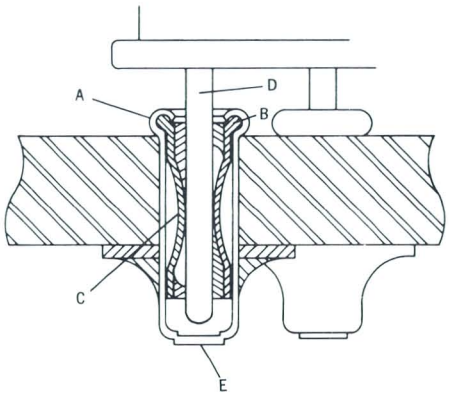
AMP Miniature Spring Sockets are component lead receptacles which are inserted and soldered into printed circuit boards to allow component pluggability. Sockets are available for component leads, for IC assemblies, and for special applications. The sockets are also available pre-inserted into modules and wafers for convenient mass insertion of a given socket pattern.

The AMP miniature spring socket adapts to a variety of wiring and packaging requirements utilizing printed circuit cards, module receptacles and other electronic applications requiring socket miniaturization. Lead components, TO can modules, miniature plug-in relays, and other integrated circuit packages can be plugged into these receptacles. Miniature sockets can be inserted into a card in a specific pattern to act as a module receptacle for multiple lead type components. Sockets may also be installed in a header and the entire assembly flow soldered to a printed circuit card. Miniature sockets with AMP posts may be installed in a card or header and the assembly mounted to a grid plate for back plane wiring using either the TERMI-POINT clip or wrap technique.

As a memory frame busing connector, the sockets can be used to plug onto pins that extend from the memory frame, permitting jumpers to be run from frame to frame.

Sockets are available with closed bottoms, open bottoms, or knockout bottoms. The knockout version is used to prevent solder wicking when sockets are flow soldered into a printed circuit card. The knockouts are then removed with a spring loaded punch. By using this knockout type in a printed circuit card, interconnections may be made by inserting a single pin through multiple cards.

AMP also offers completely packaged panels using miniature spring sockets. Consult AMP Incorporated.



A Flared lip acts as a "stop." Large bellmouth provides easy insertion of component leads.

B Stable, low resistance connection provided by precisely controlled crimp.

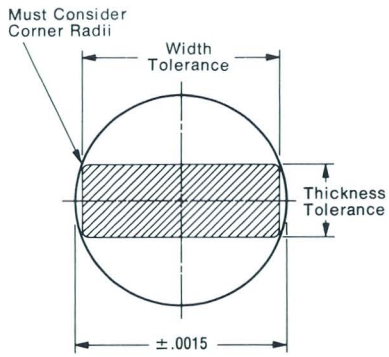
C Spring member receptacle maintains consistent pressure to hold component leads in place and permits maximum conductivity.

D Component leads, round or rectangular, are firmly retained in cup by spring members. Round leads can vary from .010″ to .065″ in diameter.

E Knockout for lead feed thru.

NOTE: When rectangular tabs are used in miniature spring sockets, the following parameters must be considered.

1. The component lead size of a rectangular or square form should be the same as its equivalent round form.
2. To insure proper spring tension, do not exceed a .002″ difference in the pin diameter when changing to a smaller pin.



ALL DIMENSIONS IN INCHES.

Note: Specifications subject to change. Consult AMP Incorporated for latest design specifications.

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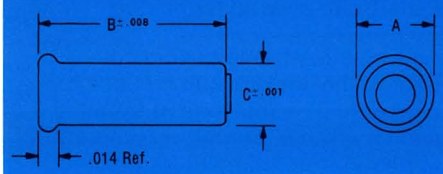
Component Lead Spring Socket

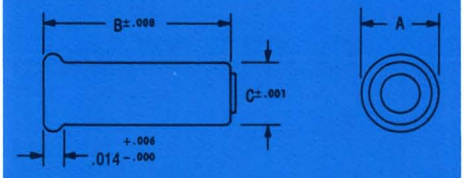


Material: Spring, Beryllium Copper; Eyelet, Copper

Pin Dia.*	A Dia. Max.	B Dim.	C Dia.	Spring Finish	Eyelet Finish	Part Numbers: Closed Bottom	Part Numbers: Knockout Bottom**	Part Numbers: Open Bottom	Recommended Hole Size (For automatic Insertion†)
.010-.013	.059	.142	.038	Gold	Gold	2-330808-2	3-330808-2	4-330808-2	.040 +.002 −.003
				Gold	Tin	5-330808-C	5-330808-1	5-330808-4	
				Tin	Tin	2-330808-1	3-330808-1	4-330808-1	
.013-.016	.059	.178	.039	Gold	Gold	1-332095-5	1-332095-6	1-332095-7	
				Gold	Tin	1-332095-8	1-332095-9	2-332095-0	
				Tin	Tin	332095	1-332095-0	1-332095-1	
.014-.017	.059	.142	.038	Gold	Gold	2-330808-5	3-330808-5	4-330808-5	
				Gold	Tin	3-330808-9	5-330808-2	5-330808-5	
				Tin	Tin	2-330808-4	3-330808-4	4-330808-4	
.014-.017	.059	.168	.038	Gold	Gold	50850-2	50850-8	1-50850-4	
				Gold	Tin	50850-3	50850-9	1-50850-5	
				Tin	Tin	50850-1	50850-7	1-50850-3	
.016-.019	.059	.168	.038	Gold	Gold	50935	50935-3	50935-6	
				Gold	Tin	50935-1	50935-4	50935-7	
				Tin	Tin	50935-2	50935-5	50935-8	
.016-.019	.059	.178	.039	Gold	Gold	2-332095-1	2-332095-2	2-332095-3	
				Gold	Tin	2-332095-4	2-332095-5	2-332095-6	
				Tin	Tin	1-332095-2	1-332095-3	1-332095-4	
.017-.019	.059	.142	.038	Gold	Gold	2-330808-8	3-330808-8	4-330808-8	
				Gold	Tin	4-330808-9	5-330808-3	5-330808-6	
				Tin	Tin	2-330808-7	3-330808-7	4-330808-7	
.017-.019	.059	.168	.038	Gold	Gold	50850-4	1-50850-0	1-50850-6	
				Gold	Tin	50850-5	1-50850-1	1-50850-7	
				Tin	Tin	50850	50850-6	1-50850-2	
.018-.021	.070	.138	.050	Gold	Gold	2-331272-2	3-331272-0	3-331272-8	
				Gold	Tin	2-331272-3	3-331272-1	3-331272-9	
				Tin	Tin	2-331272-1	2-331272-9	3-331272-7	
.018-.025	.070	.260	.050	Gold	Gold	50863-4	50863-2	50863	.052 +.003
				Gold	Tin	50863-5	50863-3	50863-1	
				Tin	Tin	50863-8	50863-7	50863-6	
.022-.025	.070	.138	.050	Gold	Gold	2-331272-6	3-331272-4	4-331272-2	
				Gold	Tin	2-331272-7	3-331272-5	4-331272-3	
				Tin	Tin	2-331272-5	3-331272-3	4-331272-1	
.022-.025	.077	.138	.060	Gold	Gold	1-331677-7	2-331677-8	2-231677-5	
				Gold	Tin	3-331677-7	3-331677-6	2-331677-0	
				Tin	Tin	1-331677-6	3-331677-5	1-331677-9	
.026-.029	.077	.138	.060	Gold	Gold	1-331677-1	3-331677-0	2-331677-7	
				Gold	Tin	3-331677-8	3-331677-2	2-331677-4	
				Tin	Tin	1-331677-0	3-331677-1	2-331677-3	
.026-.033	.077	.257	.060	Gold	Gold	50864	50864-2	50864-4	.062 +.004 −.003
				Gold	Tin	50864-1	50864-3	50864-5	
				Tin	Tin	50864-6	50864-7	50864-8	
.030-.033	.077	.138	.060	Gold	Gold	1-331677-4	2-331677-9	2-331677-6	
				Gold	Tin	1-331677-8	3-331677-4	2-331677-2	
				Tin	Tin	1-331677-3	3-331677-3	2-331677-1	
.030-.033	.089	.143	.069	Gold	Gold	332070	1-332070-5	1-332070-2	
				Gold	Tin	1-332070-9	3-332070-1	2-332070-5	
				Tin	Tin	1-332070-8	3-332070-0	2-332070-4	
.034-.037	.089	.143	.069	Gold	Gold	1-332070-0	1-332070-6	1-332070-3	
				Gold	Tin	2-322070-1	3-332070-3	2-332070-7	
				Tin	Tin	2-332070-0	3-332070-2	2-332070-6	
.034-.040	.089	.260	.069	Gold	Gold	50865	50865-2	50865-4	.072 +.004 −.003
				Gold	Tin	50865-5	50865-1	50865-3	
				Tin	Tin	50865-8	50865-7	50865-6	
.037-.040	.089	.143	.069	Gold	Gold	1-332070-1	1-332070-7	1-332070-4	
				Gold	Tin	2-332070-3	3-332070-5	2-332070-9	
				Tin	Tin	2-332070-2	3-332070-4	2-332070-8	
.042-.049	.118	.290	.100 (±.002)	Gold	Gold	50871-4	50871-2	50871	.101±.003
				Gold	Tin	50871-5	50871-3	50871-1	
				Tin	Tin	50871-8	50871-7	50871-6	
.050-.057	.118	.290	.100 (±.002)	Gold	Gold	1-50871-3	1-50871-1	50871-9	
				Gold	Tin	1-50871-4	1-50871-2	1-50871-0	
				Tin	Tin	1-50871-7	1-50871-6	1-50871-5	
.056-.065	.118	.290	.100 (±.002)	Gold	Gold	2-50871-2	2-50871-0	1-50871-8	
				Gold	Tin	2-50871-3	2-50871-1	1-50871-9	
				Tin	Tin	2-50871-6	2-50871-5	2-50871-4	

*To insure proper spring tension, do not exceed a .002″ difference in pin diameter when changing to a smaller pin.
**Knockout bottom product is not recommended for use with miniature spring insertion machine.
†For hand insertion, drill hole diameter to appropriate nominal "C" diameter +.001 to +.004.

Integrated Circuit Spring Socket



Material: Spring, Beryllium Copper; Eyelet, Copper

Pin Dia.*	A Dia. Max.	B Dim.	C Dia.	Spring Finish	Eyelet Finish	Part Numbers: Closed Bottom	Part Numbers: Knockout Bottom**	Part Numbers: Open Bottom	Recommended Hole Size (For automatic Insertion†)
.016-.019	.059	.142	.038	Gold	Gold	5-330808-7	5-330808-9	6-330808-2	$.040^{+.002}_{-.003}$
				Gold	Tin	6-330808-5	6-330808-0	6-330808-3	
				Tin	Tin	6-330808-4	5-330808-8	6-330808-1	
.018-.019	.059	.142	.038	Gold	Gold	7-330808-3	7-330808-0	6-330808-7	
				Gold	Tin	7-330808-4	7-330808-1	6-330808-9	
				Tin	Tin	7-330808-5	7-330808-2	6-330808-8	
.015-.021 x .008-.014 tab or .016-.022 pin	.070	.178	.050	Gold	Gold	50462-6	50462-3	50462	$.052^{\pm.003}$
				Gold	Tin	50462-8	50462-5	50462-2	
				Tin	Tin	50462-7	50462-4	50462-1	
.018-.025	.070	.260	.050	Gold	Gold	1-332080-3	1-332080-1	332080	$.052^{\pm.003}$
				Gold	Tin	1-332080-4	1-332080-2	1-332080-0	
				Tin	Tin	1-332080-7	1-332080-6	1-332080-5	
.028-.033	.077	.260	.060	Gold	Gold	332075	1-332075-1	1-332075-3	$.062^{+.004}_{-.003}$
				Gold	Tin	1-332075-0	1-332075-2	1-332075-4	
				Tin	Tin	1-332075-5	1-332075-6	1-332075-7	
.034-.040	.089	.260	.069	Gold	Gold	331892	1-331892-1	1-331892-3	$.072^{+.004}_{-.003}$
				Gold	Tin	1-331892-4	1-331892-0	1-331892-2	
				Tin	Tin	1-331892-5	1-331892-6	1-331892-8	

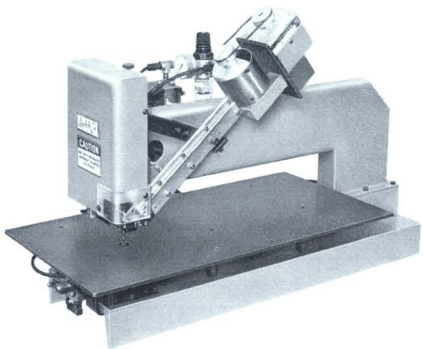
*To insure proper spring tension, do not exceed a .002″ difference in pin diameter when changing to a smaller pin.
**Knockout bottom product is not recommended for use with miniature spring insertion machine.
†For hand insertion, drill hole diameter to appropriate nominal "C" diameter +.001 to +.004.

Bottom Plug Knockout Tool

Part No. 69729

Tip Numbers	For Miniature Spring Sockets Having A Pin Dia. Range of:
69728	.010-.012
69728-1	.014-.016
69728-2	.016-.020
69728-3	.020 and larger

Miniature Spring Socket Insertion Machine



Part Number 265206-1

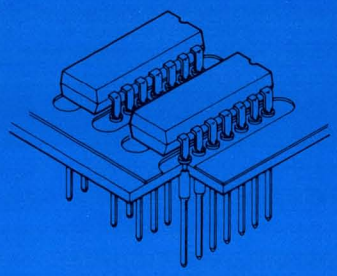
The Miniature Socket Insertion Machine provides a reliable, fast and efficient means of loading sockets into dielectric panels. This bench mounted semi-automatic machine is capable of loading sockets into panels with pre-drilled holes of virtually any pattern configuration, spaced as close as .085″ between centers at a net rate of 3000 an hour.

Many design features are built into this compact electro-pneumatic machine to offer ease of operation, eliminate extensive operator training and possible human error, plus assure long trouble-free service. These AMP features combine to enhance the economy of production by providing the assurance for highest product quality at the lowest installed cost.

Versatile, as well as economically efficient, the Miniature Socket Insertion Machine can accommodate board thicknesses of .062″ to .125″ and can load sockets up to .300″ long into board holes ranging from .038″ to .100″ in diameter. Through the use of interchangeable tooling and the need of only a few simple adjustments, socket size and board thickness changeovers are accomplished rapidly and with minimum production downtime. Augmenting these machine capabilities, too, is the machine's uniquely designed head, which can be quickly removed as a complete functional assembly and easily attached to numerically-controlled equipment for fully automated applications.

Specifications

Special Application Miniature Spring Sockets



Material: Spring—Beryllium Copper
Body—Brass

Fig. A

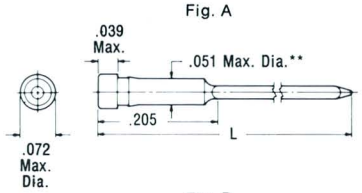


Fig. B

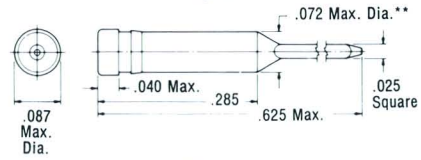


Fig. C

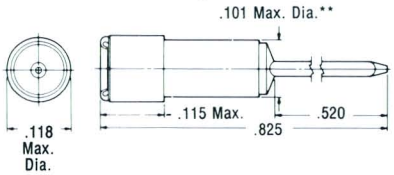


Fig. D

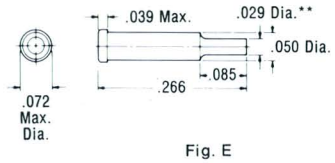


Fig. E

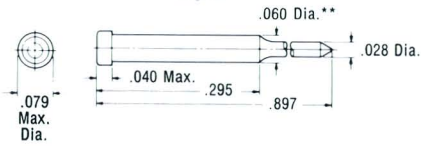


Fig. F

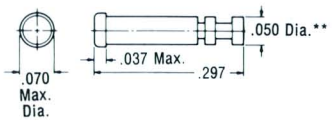


Fig. G

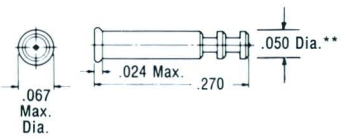


Fig. H

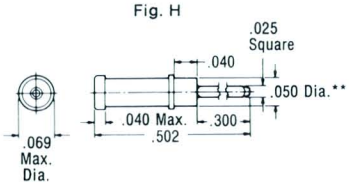


Fig. J
(use crimping tool No. 69665)

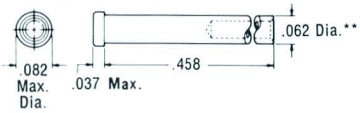


Fig. K

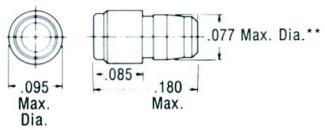
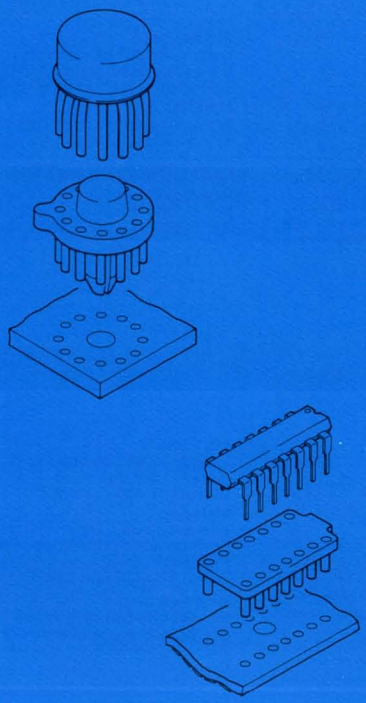
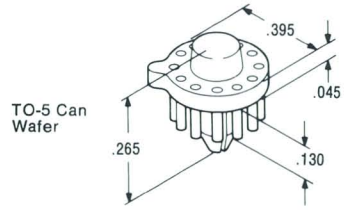


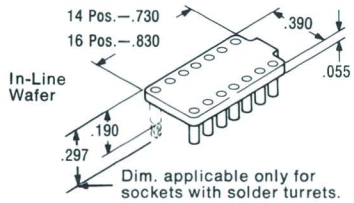
Figure	Description		L	Spring Finish	Eyelet Finish	Part No.	Pin Dia.*
A	Socket with .025″ x .025″ post		.725	Gold	Gold	116026-1	.016-.022 x .008-.015 Tab or .016-.022 Pin
				Gold	Tin	116026-2	
	Socket with .022″ x .036″ post		.744	Gold	Gold	51965-1	
B	Socket with .025″ x .025″ post		—	Gold	Tin	52120	.034-.041
			—	Tin	Tin	52120-1	
C	Socket with .025″ x .025″ post		—	Gold	Tin	51925	.056-.065
			—	Gold	Gold	51925-1	
	Socket with .022″ x .036″ post		—	Gold	Tin	51964	
			—	Gold	Gold	51964-1	
D	Stand off miniature spring socket		—	Gold	Tin	331810	.017-.020
E	Socket with .028″ dia. round post		—	Gold	Gold	332353	.027-.030
F	Socket with solder turret		—	Gold	Gold	332223	.022-.025
			—	Gold	Gold	1-332223-0	.016-.022
			—	Gold	Gold	1-332223-1	.018-.021
G	Socket with solder turret		—	Gold	Gold	50910	.016-.022
H	Stand off socket with .025″ x .025″ post		—	Gold	Gold	332240	.017-.020
J	Spring socket with crimp barrel	#20 wire	—	Gold	Gold	332179	.030-.032
		#22 wire	—	Gold	Gold	1-332179-0	
		#24 wire	—	Gold	Gold	1-332179-1	
K	Test plug spring socket		—	Gold	Gold	50925	.039-.040
			—	Gold	Tin	50925-1	

*To insure proper spring tension, do not exceed a .002″ difference in pin diameter when changing to a smaller pin.
**Drill hole diameter to appropriate nominal diameter +.001 to +.004.

Miniature Spring Socket Mounting Wafers





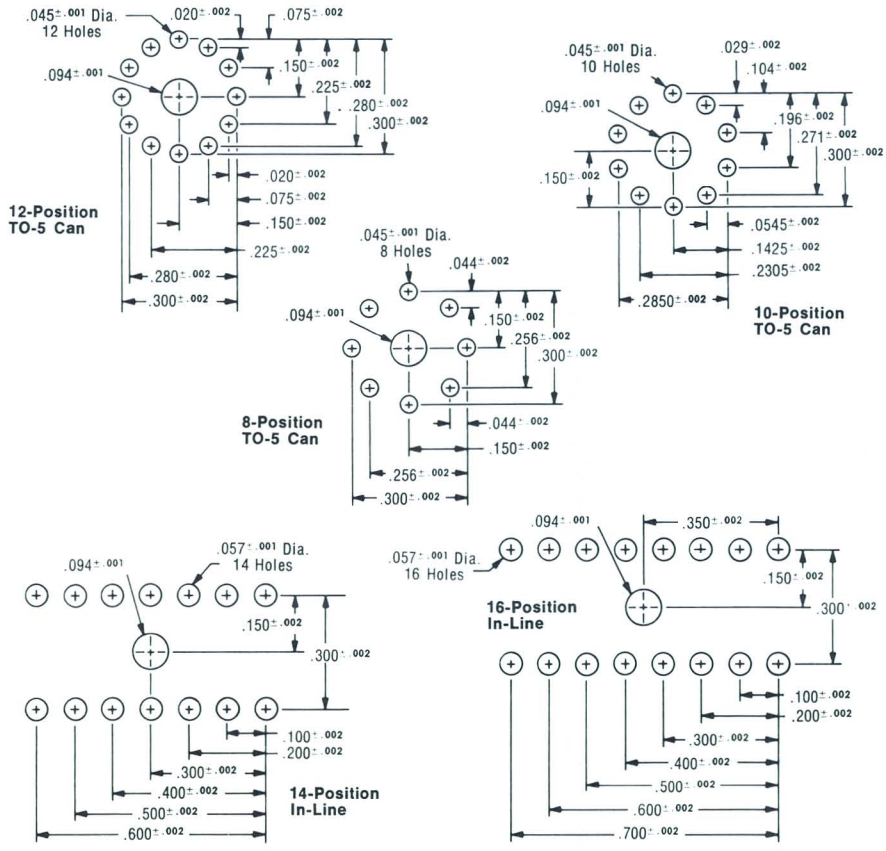


Material: Wafer, Nylon; Spring, Beryllium Copper; Eyelet, Copper (with Solder Turrets, Brass)

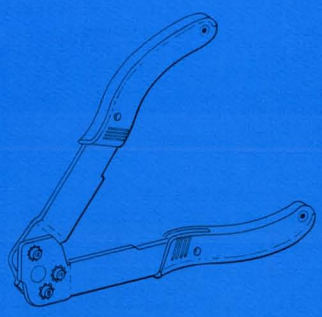
Pin Dia.*	Module Size And Type	Spring Finish	Eyelet Finish	Part Numbers: Closed Bottom	Part Numbers: Knockout Bottom	Part Numbers: Open Bottom	Wafer Color
.016-.019	8 Position TO-5 Can Module**	Tin	Tin	50502-6	50502	50502-3	Yellow
		Gold	Gold	50502-7	50502-1	50502-4	
		Gold	Tin	50502-8	50502-2	50502-5	
	10 Position TO-5 Can Module**	Tin	Tin	50480-6	50480	50480-3	Red
		Gold	Gold	50480-7	50480-1	50480-4	
		Gold	Tin	50480-8	50480-2	50480-5	
	12 Position TO-5 Can Module**	Tin	Tin	50501-6	50501	50501-3	Blue
		Gold	Gold	50501-7	50501-1	50501-4	
		Gold	Tin	50501-8	50501-2	50501-5	
.016-.022	14 Position In-Line Module	Tin	Tin	50477-7	50477-4	50477-1	Yellow
		Gold	Gold	50477-6	50477-3	50477	
		Gold	Tin	50477-8	50477-5	50477-2	
	16 Position In-Line Module	Tin	Tin	50486-7	50486-4	50486-1	Red
		Gold	Gold	50486-6	50486-3	50486	
		Gold	Tin	50486-8	50486-5	50486-2	
	14 Position In-Line Module (with solder turrets)	Gold	Gold	50898	—	—	Yellow
	16 Position In-Line Module (with solder turrets)	Gold	Gold	50899	—	—	Red

*To insure proper spring tension, do not exceed a .002" difference in pin diameter when changing to a smaller pin.
**See Lead Cutter table.

Mounting Dimensions



Lead Cutter for TO-5 Can Modules

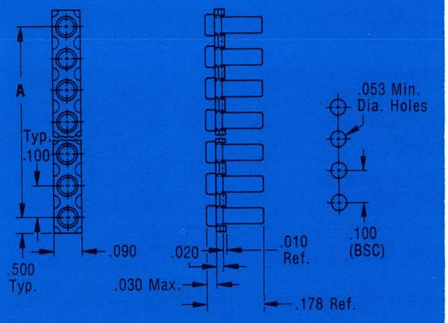


No. of Leads	Tool Part No.
8	69730-1
10	69730-2
12	69730-3

Single Row In-Line Socket Strip

Pin Range:
Length—.110″ at maximum material condition, to .165″
Diameter—.016″ to .022″
Material:
Wafer—nylon, natural color
Spring—gold plated beryllium copper
Eyelet—tin plated copper
Part Numbers:
No. 645831—1000 piece reel
No. 645831-2—7 piece strip
No. 645831-3—8 piece strip

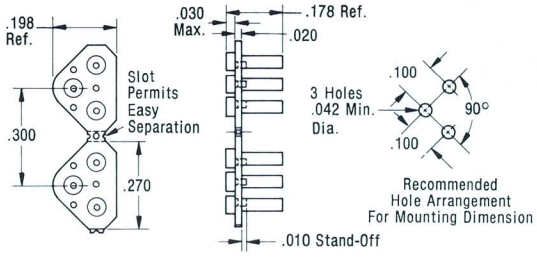
Qty. Per Strip	A	Part Number
1000	100.00	645831-1
9	.90	645831-2
12	1.20	645831-3
18	1.80	645831-4
20	2.00	645831-5



Miniature Spring Socket Modules

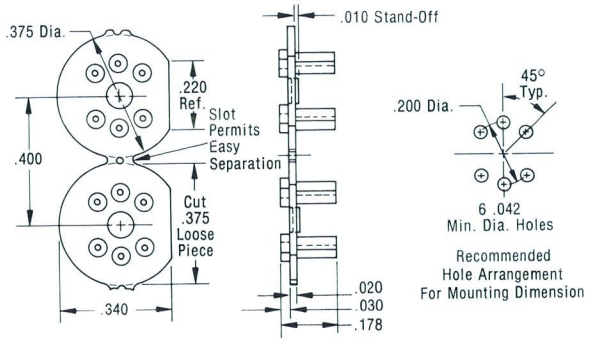
These modules are supplied loose piece or in strip form on reels for easy gang insertion.

3 Position



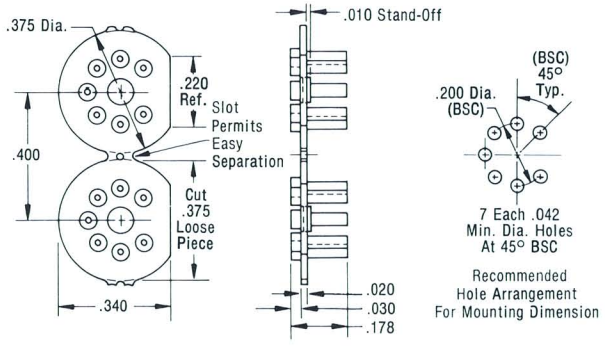
Pin Range:
Length—.080″ at maximum material condition, to .165″
Diameter—.016″ to .019″
Material:
Wafer—nylon, natural color
Spring—gold plated beryllium copper
Eyelet—tin plated copper
Part Numbers:
No. 645814-4—loose piece
No. 645814-3—2500 piece reel

6 Position



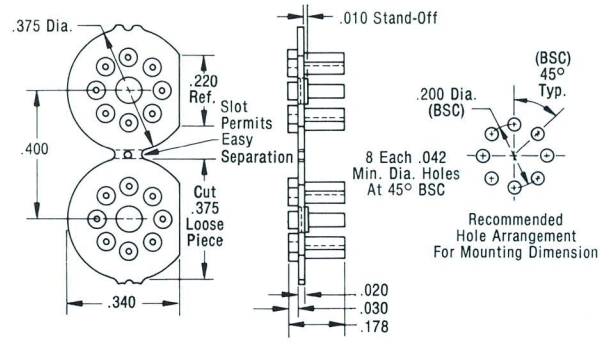
Pin Range:
Length—.080″ at maximum material condition, to .165″
Diameter—.016″ to .019″
Material:
Wafer—nylon, natural color
Spring—gold plated beryllium copper
Eyelet—tin plated copper
Part Numbers:
No. 645815-4—loose piece
No. 645815-3—2500 piece reel

7 Position



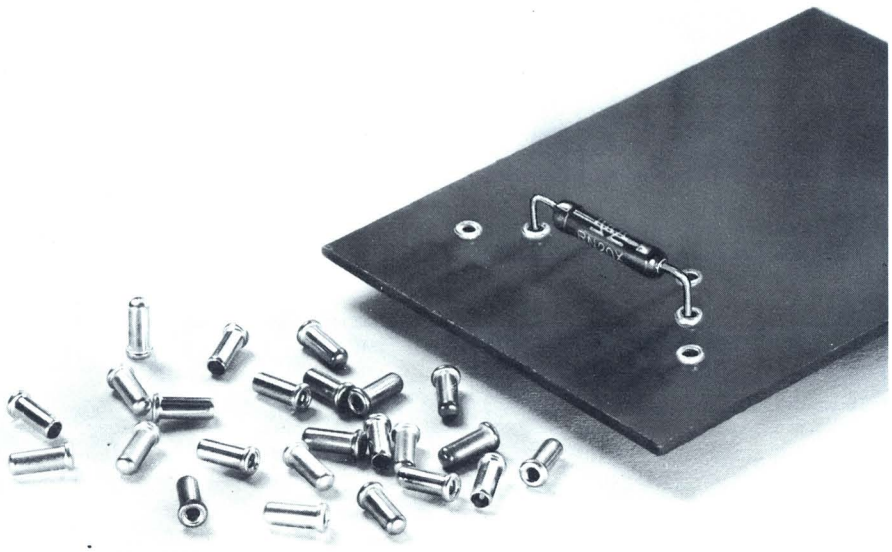
Pin Range:
Length—.080″ at maximum material condition, to .165″
Diameter—.016″ to .019″
Material:
Wafer—nylon, natural color
Spring—gold plated beryllium copper
Eyelet—tin plated copper
Part Numbers:
No. 645816-4—loose piece
No. 645816-3—2500 piece reel

8 Position



Pin Range:
Length—.080″ at maximum material condition, to .165″
Diameter—.016″ to .019″
Material:
Wafer—nylon, natural color
Spring—gold plated beryllium copper
Eyelet—tin plated copper
Part Numbers:
No. 645817-4—loose piece
No. 645817-3—2500 piece reel

Reusable Component Receptacles



The AMP Reusable Component Receptacles for testing/mounting printed circuit board components include a standard gold plated open and closed bottom version, as well as an economy closed bottom version and a "stand-off" version. These receptacles protect and extend the life of the printed circuit boards and components from damage during "burning-in" and "bread boarding." The Reusable Component Receptacle requires only soldering to the board, thereby eliminating the individual soldering of each component lead into the circuit layout. Testing is accomplished by hand insertion and extraction of component leads.

All receptacles consist of a drawn copper cup, flared at one end to facilitate entry of a component lead; the flared end also limits the receptacles from continuing through the printed circuit board. A spring member of beryllium copper holds component leads in position and exerts a uniform pressure which maintains the retention and conductivity values necessary to assure true test readings.

The standard, both open and closed bottom types, have gold plated cups. The economy version is tin-lead plated. The spring member material remains the same in all receptacles—beryllium copper with tin or gold-over-nickel plating. The "stand-off" version has a gold plated beryllium copper spring with a tin-lead plated cup. The spacer is tin-lead plated brass.

A diameter of .089" is required for mounting. Once installed, these receptacles accept component leads from .018" to .050" in diameter without being affected by repeated insertions and extractions over extended periods of time. Retention values are best maintained when the receptacle is used for repeated acceptances of the same size component lead, or larger diameters.

Receptacles may be used: (1) for prototype work in arranging components on printed circuit boards; (2) as a quick and reliable method in testing transistors, resistors, diodes, capacitors and components at the prototype level; (3) when selecting more effective and/or reliable components with different electrical values; (4) as a module connector by mounting receptacles in an array comparable with module leads of various configurations, thus providing a pluggable and removable method of mounting this type of circuit.

Features

- Variety of test receptacles are available.
- Receptacles tend to prevent heat damage to printed circuit boards and components during "burn-in" and "bread boarding" evaluation.
- Accepts component leads from .018" to .040" and from .036" to .051".
- The receptacle eliminates necessity of soldering components directly to the board.
- Insertions and extractions of board components can be repeated at least 100 times.
- .089 diameter hole (#43 drill) required for mounting.
- High-speed insertion. See application tooling on back page.

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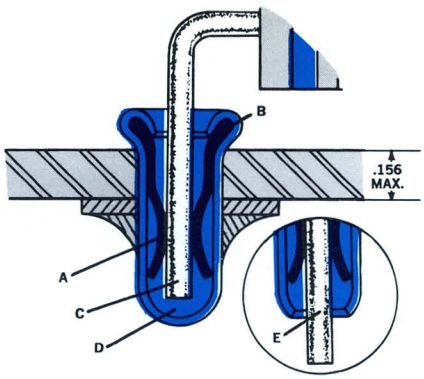
Specifications

Closed Bottom



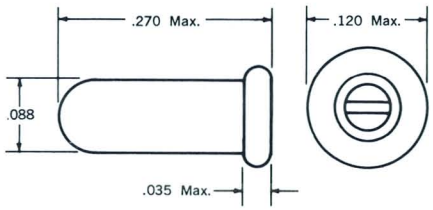
A Spring member receptacles maintain uniform pressure to hold component leads in place and create maximum conductivity to assure true readings.

B Flared lip acts as a "stop" and also creates bellmouth entry for easy insertion of component leads.

C Component leads, varying from .018 to .040, and .036 to .051 are firmly retained in cup by spring member.

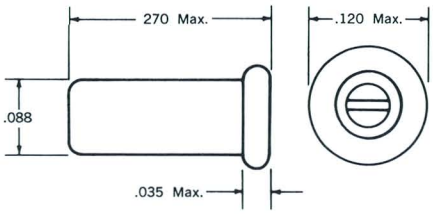
D Drawn copper cup is designed so that only one hole size—.089—is required for mounting.

E Open end for complete lead feed-through.



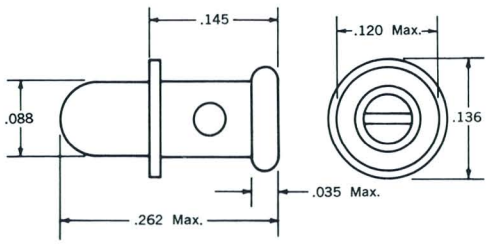
ACCEPTS LEAD SIZE	FINISH CUP	FINISH SPRING	PART NUMBER
.018-.040	Gold	Gold	380598-1
	Tin-Lead	Gold	380598-2
.036-.051	Tin-Lead	Tin	1-380758-0

Open Bottom



ACCEPTS LEAD SIZE	FINISH CUP	FINISH SPRING	PART NUMBER
.018-.040	Gold	Gold	380635-1
	Tin-Lead	Gold	380635-2

Stand Off



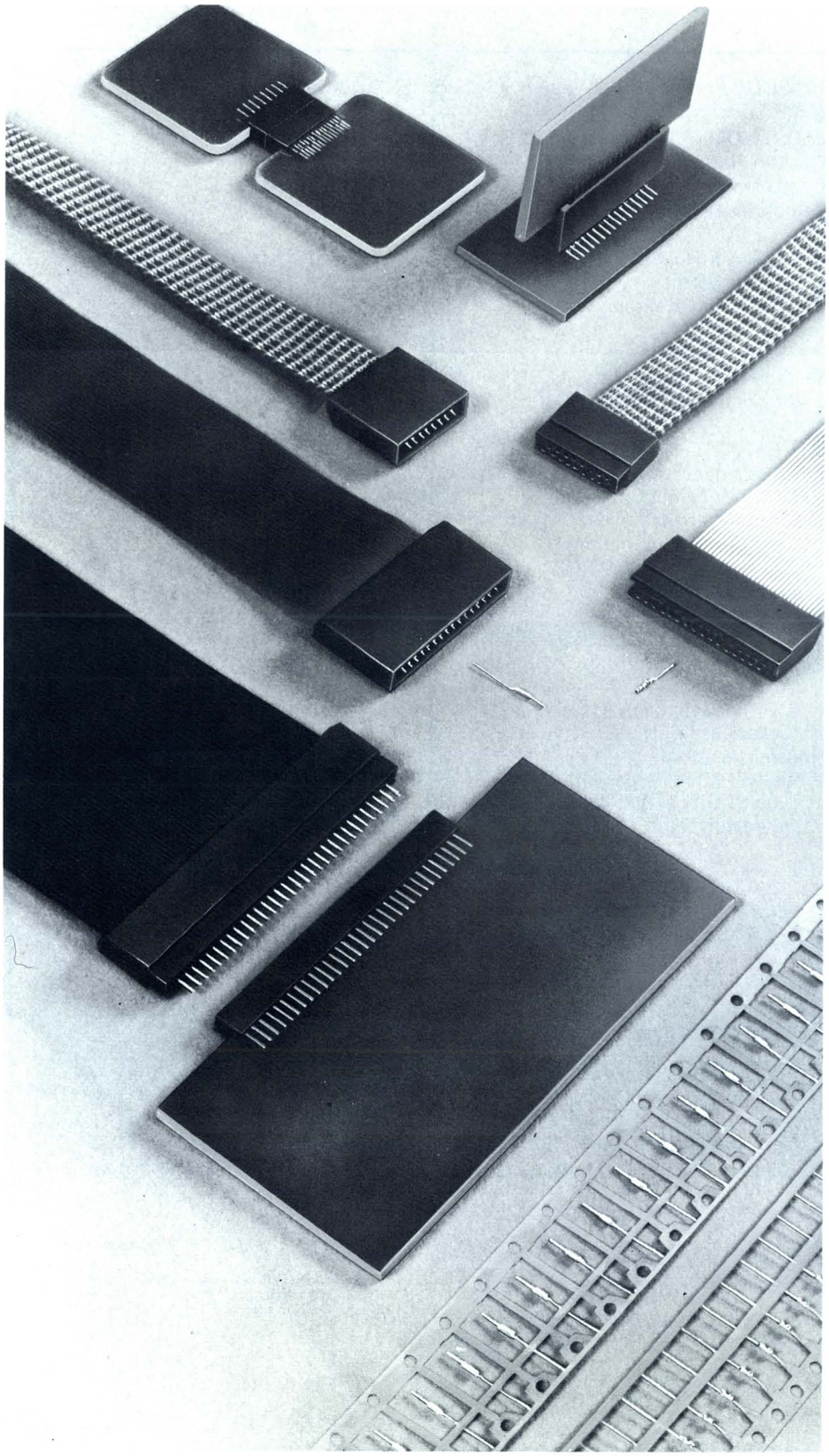
ACCEPTS LEAD SIZE	FINISH CUP	FINISH SPRING	PART NUMBER
.018-.040	Tin-Lead	Gold	1-380737-0

Application Tooling

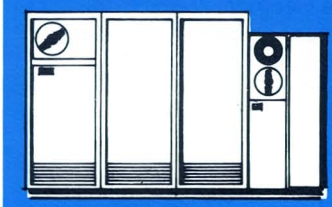
Test Receptacle Insertion Machine, AMP Part No. 456891-1

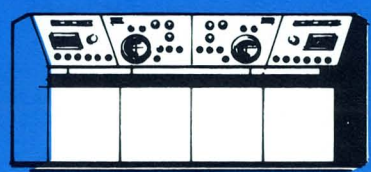
The Test Receptacle Insertion Machine provides a reliable, fast and efficient means of loading Reusable Component Test Receptacles into printed circuit boards. This bench mounted semi-automatic machine is capable of loading loose piece receptacles into boards at a net rate of 3000 an hour. The boards can contain pre-drilled holes of virtually any pattern configuration.

Many AMP features are built into this compact electro-pneumatic unit to enhance the economy of production by assuring highest product quality at the lowest applied cost. Its basic design offers ease of operation, eliminates extensive operator training and possible human error, and assures long trouble-free service. It also can accommodate the full range of board thicknesses, from .062" to .125". Board thickness changeovers are accomplished rapidly and with minimum production downtime, requiring one simple adjustment.



Chevron Shaped Contact Connector





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Chevron Shaped Contact Connector

From the extensive research, development and engineering facilities of AMP comes this latest development in the field of micro-electronic packaging — the AMP Chevron Shaped Contact Connector. This connector system is designed for electronic applications requiring a high level of reliability and maximum packaging density. The stamped and formed chevron shaped receptacle and mating pin contact are housed in diallyl phthalate housings with contact springs on either .050" true centers or .050" staggered which produces a .025" centerline at the point of termination. In addition, to allow for possible engagement misalignment each connector provides maximum pin lead-in and "floating" receptacles.

For positive electrical contact, the beryllium copper receptacles have two integral spiral springs which, when engaged with the .015" diameter pin contact, provide redundant points of contact. This characteristic, combined with gold over nickel plating, assures reliable performance in critical environments.

The Chevron Shaped Contact Connector can also be used in applications where matched impedance is a major factor. The .025" centerline connector terminated to 75 ohm cable and examined by use of the Time Domain Reflectometry Techniques, revealed no greater variations than those normally found in the cable.

A variety of connector configurations are available for board-to-board, board-to-wire or wire-to-wire applications.

Applicable Instruction Sheets:
No. 7388 — Edge Mount Assembly
No. 7518 — Cable Connector

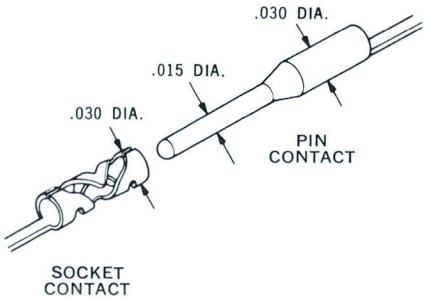
PRODUCT SPECIFICATIONS
(AMP Spec. No. 108-9032)

ELECTRICAL CHARACTERISTICS
Contact Rating:
1.0 amps.
Temperature Rating:
−65° C. to +125° C.
Insulation Resistance:
500 Megohms
Dielectric Withstanding:
(at sea level):
450 Volts RMS
Termination Resistance:
32 milliohms max. (.050 ℄)

MECHANICAL CHARACTERISTICS
Engagement force:
4 oz. per contact nominal
Separation force:
3 oz. per contact nominal

CONSTRUCTION
Contact Material:
Beryllium Copper per QQ-C-533
Contact Plating:
Gold over Nickel.
Gold per MIL-G-45204,
Nickel per QQ-N-290
Housing Material:
Diallyl Phthalate per MIL-M-14,
Type SDG-F. (Edge type connector only)

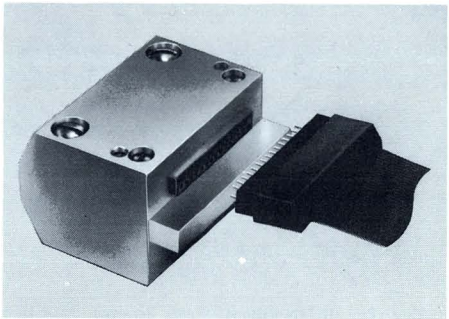
CONTACTS



ALL DIMENSIONS IN INCHES

Note: Specifications subject to change. Consult AMP Incorporated for latest design specifications.

TYPICAL APPLICATIONS



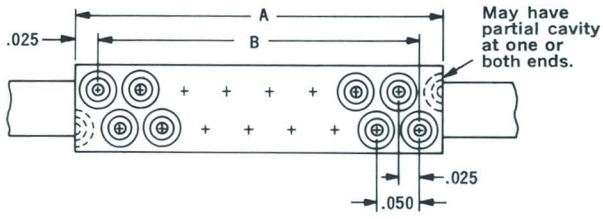
Applications shown are memory plane and magnetic head, using Chevron Shaped Contact Connectors.

Connector Specifications (.025 and .050 Centers)

Edge Mounted Connectors

(Connectors to 150 position available upon special request)

With Square Ends



Pin half illustrated, receptacle half mirror image.

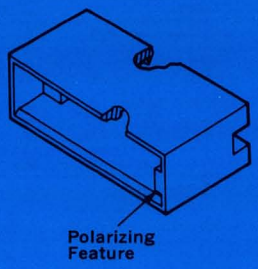
Contact Type	Tab Spacing	No. of Positions	Dimensions A	Dimensions B	Part Number
Pin	.025	16	.425	.375	203988-1
		18	.475	.425	203988-4
		32	.825	.775	203988-2
		64	1.625	1.575	203988-3
	.050	16	.425	.375	203989-1
		17	.450	.400	203989-5
		18	.475	.425	208989-4
		24	.625	.575	1-203989-1
		32	.825	.775	203989-2
		52	1.325	1.275	1-203989-2
		64	1.625	1.575	203989-3
		72	1.825	1.775	203989-7
		100	2.525	2.475	203989-6
Receptacle	.025	16	.425	.375	203990-1
		18	.475	.425	203990-4
		32	.825	.775	203990-2
		52	1.325	1.275	203990-5
		64	1.625	1.575	203990-3
	.050	16	.425	.375	203991-1
		18	.475	.425	203991-4
		24	.625	.575	1-203991-0
		32	.825	.775	203991-2
		52	1.325	1.275	1-203991-1
		64	1.625	1.575	203991-3
		72	1.825	1.775	203991-6
		100	2.525	2.475	203991-5

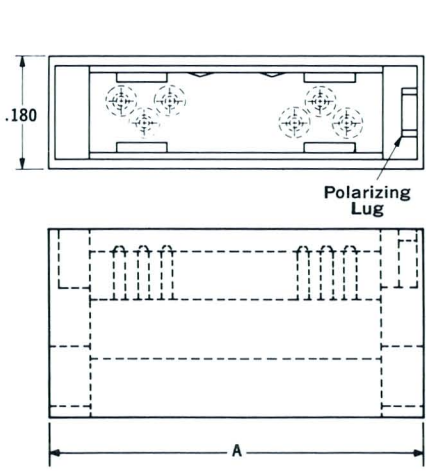
NOTE: Other sizes available upon request.

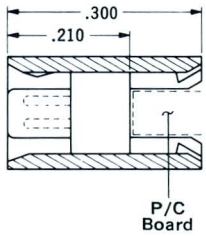
Pin Protector and Locking Device

(Used on Card Pin Assembly 203988 or 203989 mating with Cable Receptacle Assembly 204278).

Material: Glass Filled Nylon.



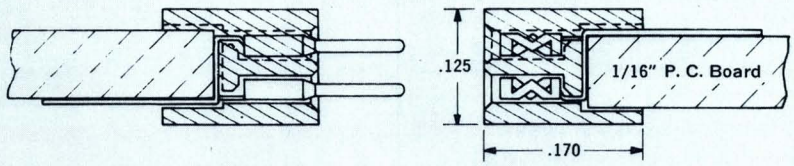




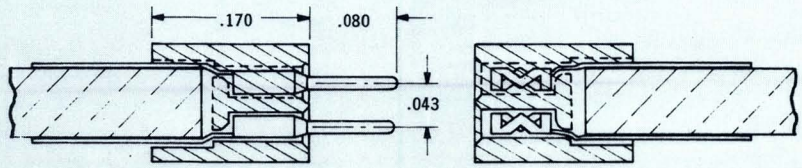
Part No.	Positions of Connector on Which Used	A
204623-1	16	.560
204623-4	17	.590
204623-2	32	.960
204623-3	64	1.760

Typical Edge Mounted Assemblies

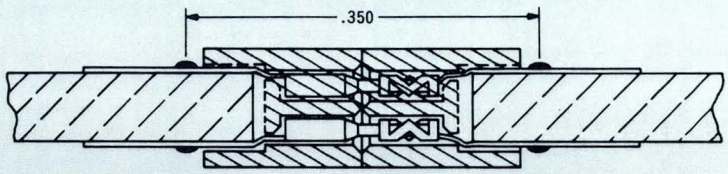
(Connectors mounted to pc board by bonding with a filled epoxy such as Hysal Epoxy Patch #C1 or equivalent.)



Solder Tab on .025 center line one side of board

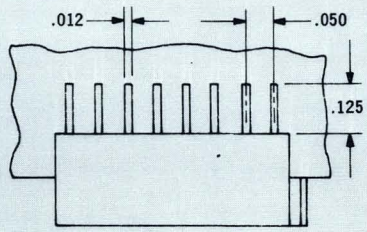


Solder Tab on .050 center line both sides of board

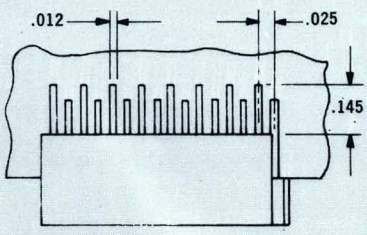


Typical Mated Assembly*

*Initial pin-to-receptacle mating alignment must be within 5° to prevent contact damage. Also, to avoid contact damage, mating connectors must be mounted so that they are able to shift into exact alignment once engaged.

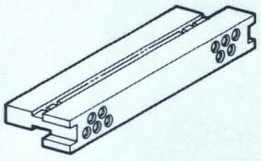


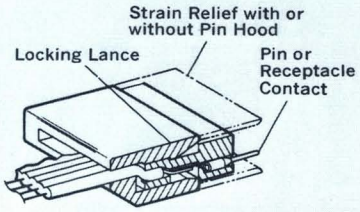
Solder Tabs on .050 center line both sides of board

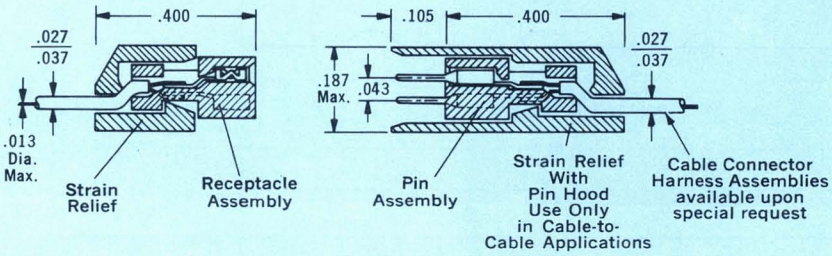


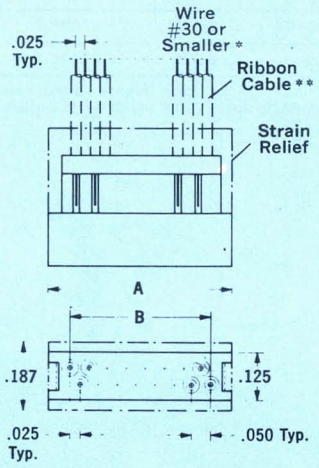
Solder Tab on .025 center line one side of board

Cable Connector





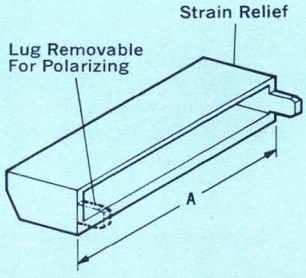




Cable Connector Assemblies
(Without Strain Relief)

Contact Type	No. of Positions	Dimensions A	Dimensions B	Part Number
Receptacle	16	.525	.375	204278-1
	17	.550	.400	204278-5
	32	.925	.775	204278-2
	64	1.725	1:575	204278-3
Pin	16	.525	.375	204277-1
	32	.925	.775	204277-2
	64	1.725	1.575	204277-3

NOTE: Pin half illustrated, receptacle half mirror image.
*#28 AWG also may be used — consult AMP Product Engineering.
**Complete harness assemblies available upon request.

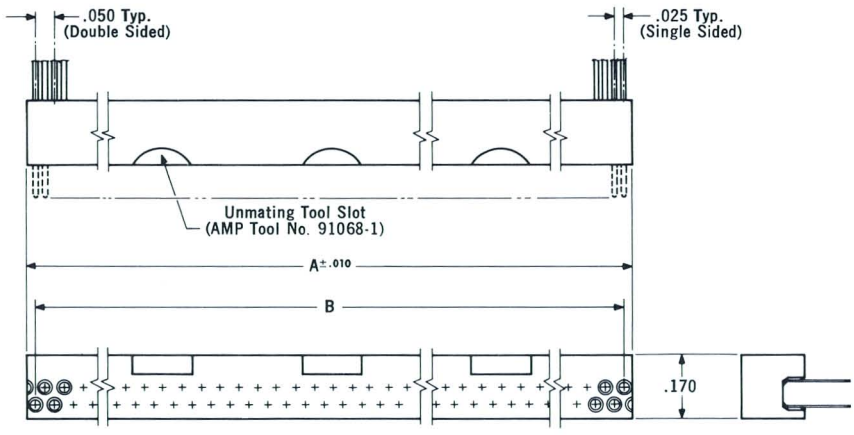


Strain Relief
(For Cable Connector Housings)

Type	No. of Positions	Dimension A	Part Number
Without Pin Hood	16	.525	204276-1
	17	.550	204276-9
	32	.925	204276-2
	64	1.725	204276-3
With Pin Hood***	16	.560	204276-4
	32	.960	204276-5
	64	1.760	204276-6

***Used only in cable-to-cable arrangements.

Edge Mounted Connectors (Reinforced housing with unmating tool slots)



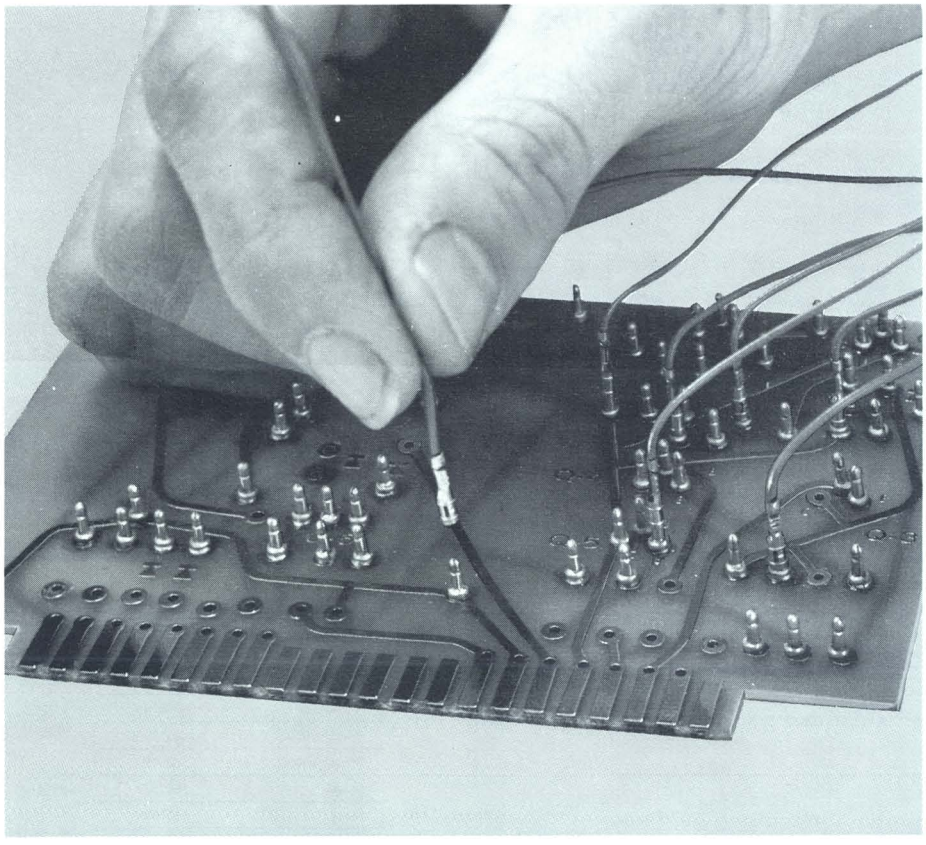
Receptacle half illustrated, pin half mirror image.

Contact Type	Tab Spacing*	No. of Positions**	Dimensions		Part Number
			A	B	
Pin	.025	120	3.035	2.975	87076-1
Receptacle	.050	120	3.035	2.975	87076-2

NOTE: This version is recommended for all card-to-card interconnections over 64 positions (essential for 100 positions and over). Connector mounts and performs the same as standard edge mounted connectors.

*Connectors available in either .025 or .050 centerline.

**Other sizes available upon request.



AMP Printed Circuit Board Disconnect

AMP's printed circuit disconnect embodies the dual features of automation and the ability to make quick wiring changes. The special formed pins, available in .058" and .093" diameters, can be inserted in a printed circuit board quickly and reliably by fully automatic or semi-automatic machinery. The solid pin family, in .058" diameter, is attached manually; its knurled edge retains it mechanically in the board until soldering is complete. All pins should be soldered to insure mechanical and electrical reliability. Pins are available for both single sided and double sided printed circuit boards. The receptacles are applied quickly and efficiently to wire by applicator tooling which can be run in semi-automatic AMP-O-LECTRIC or fully automatic SELM or AMPOMATOR machinery.

For applications requiring insulated receptacles AMP provides a crimp snap-in receptacle and a nylon housing which will mate with the .093" diameter pins. These housings are available in one to six circuit configurations. Terminated receptacles are easily hand inserted into the housing and lock in place.

All receptacles feature the precision wire crimp with attendant insulation crimp for high mechanical strength. A variety of wire and insulation ranges are available as listed. The combination of the pin and receptacle enables users to bring a variety of wires to a printed circuit board and offers the capability of a quick disconnect. The product is ideal for use in prototype and production applications, particularly where wiring changes are required. Specific users include radio, television, machine controls, military equipment, test equipment, computer and business machine industries.

Features

- Quick Disconnect
- Automatic or Semi-Automatic Application of Strip Form Receptacles to Wire
- Receptacles for Wire Sizes 28 thru 18 AWG and Tinsel Wire
- Automatic or Semi-Automatic Insertion of Strip Form Pins to Printed Circuit Boards
- Solid or Formed Pins, Single or Double Sided Printed Circuit Board Capability
- Choice of Materials and Platings

Note: All dimensions in inches.

Specifications subject to change. Consult AMP Incorporated for latest design specifications.

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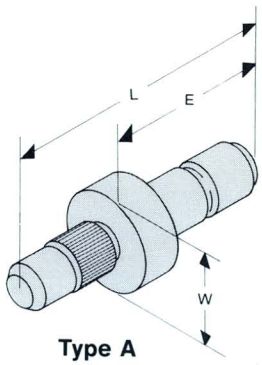
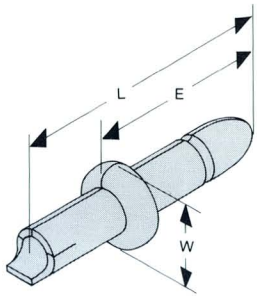
Specifications

Pins



Type A



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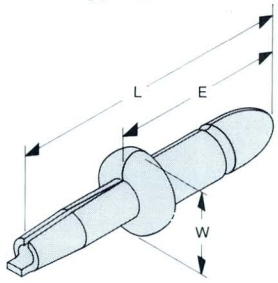

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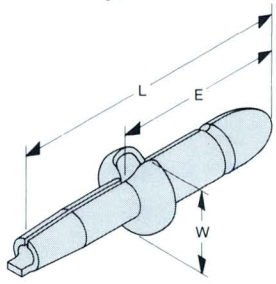


Type D

.058 Diameter Solid Pins

Type*	Hole Diameter	Printed Circuit Board Thickness	E	L	W	Material & Finish	Part Number Loose Piece	Insertion Tool No.
A	.062/.059	1/16	.195	.315	.110	Brass, Tin	60599-1	
						Brass	60599-2	
						Brass, .000030 Gold	60599-3	
						Brass, .000050 Gold	60599-4	
A	.062/.059	1/8	.195	.385	.110	Brass	60753-1	689141-1
						Brass, Tin	60753-2	
						Brass, .000030 Gold	60753-3	
A	.062/.059	1/32	.195	.265	.110	Brass, Tin	60839-1	
						Brass	60839-2	

.058 Diameter Formed Pins

Type*	Hole Diameter	Printed Circuit Board Thickness	E	L	W	Material & Finish	Part Number Strip Form	Part Number Loose Piece	Insertion Tool No.
B	.050/.046	1/16 or 3/32	.210	.360	.095	Brass, Pre-Tin	60802-2	60803-2	
						Brass, .000030 Gold	60802-1	60803-1	
B	.050/.046	1/16 or 3/32	.210	.485	.095	Brass, Pre-Tin	350030-1	–	
B	.062/.058	1/16 or 3/32	.210	.360	.095	Brass, Pre-Tin	60809-1	60874-1	689141-1
						Brass, .000030 Gold	60809-2	60874-2	
B	.070/.066	1/16 or 3/32	.210	.360	.095	Brass, Pre-Tin	60813-1	61018-1	
						Brass, .000030 Gold	60813-2	–	
B	**	1/16 or 3/32	.210	.360	.095	Brass, Pre-Tin	640000-1	–	
C	.073/.067	1/16	.210	.310	.095	Brass, Pre-Tin	60824-1	61097-1	
						Brass, .000030 Gold	60824-2	61097-2	
C	.061/.055	1/16	.210	.310	.095	Brass, Pre-Tin	60973-1	–	–
						Brass, .000030 Gold	60973-2	–	
						Brass	60973-3	–	
D	.050/.046	1/16 or 3/32	.210	.360	.095	Brass, .000030 Gold	61038-1	61067-1	

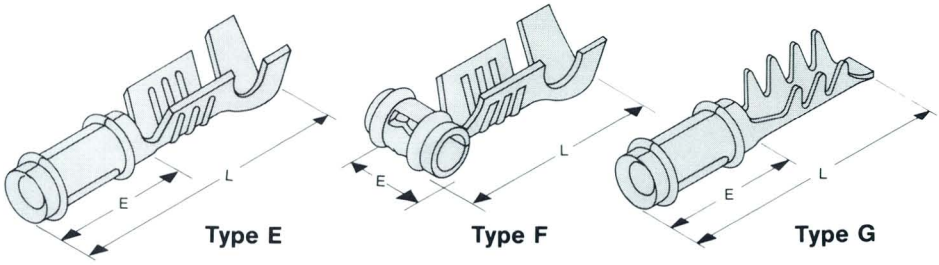
.093 Diameter Formed Pins

Type*	Hole Diameter	Printed Circuit Board Thickness	E	L	W	Material & Finish	Part Number Strip Form	Part Number Loose Piece	Insertion Tool No.
C	.073/.067	1/16	.305	.410	.115	Pre-Tin Brass	61137-1	350491-1	–

*Type A and B—Retained in printed circuit board by interference fit.
*Type C—Retained in printed circuit board by clinching.
*Type D—Retained in printed circuit board by interference fit and designed for two sided boards.
**Punched Hole: Copper side—.050/.046, Other side—.060/.055.

Pin Receptacles

Note: Abbreviations used in the following charts are:
Phos. Brz.—Phosphor Bronze
Be. Cu.—Beryllium Copper



.058 Diameter Pin Receptacles

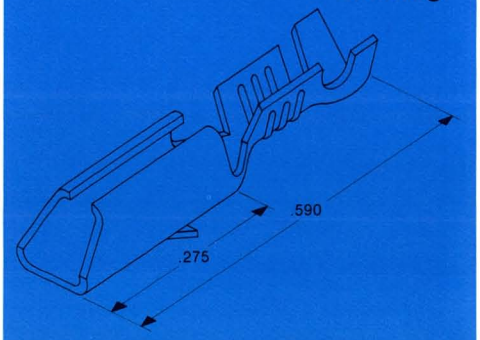
Type	Wire Size	Insulation Diameter	E	L	Material & Finish	Part Numbers: For Standard Applicator	For Miniature Applicator	Loose Piece	Hand Tool	Insertion Tool
E	28-26	.035-.045	.155	.380	Phos. Brz., Pre-Tin	60354-2	60354-7	60790-1	90205-1	
					Be. Cu., Tin	60354-3	60354-5	—		
					Be. Cu., .000030 Gold	60354-4	60354-6	60790-2		
E	28-26	—	.155	.300	Phos. Brz., Pre-Tin	60740-2	—	—		
E	26-22	.035-.065	.155	.380	Phos. Brz., .000030 Gold	60804-1	60888-2	60983-1	90131-2	452383-1
					Phos. Brz., Pre-Tin	60804-2	60888-1	60983-2		
					Be. Cu., Tin	60804-3	60888-3	60983-4		
					Be. Cu., .000030 Gold	60804-4	60888-4	60983-3		
E	26-22	.035-.065	.155	.380	Phos. Brz., Tin	61160-1†	—	—	90204-1	
E	26-20	.040-.110	.155	.395	Be. Cu., Tin	350196-1	—	—	—	
E	24-20	.045-.070	.155	.380	Phos. Brz., .000030 Gold	60598-5	60598-7	60789-3	90204-1	
					Phos. Brz., Pre-Tin	60598-1	60598-3	60789-1		
					Be. Cu., Tin	60598-2	60598-4	60789-2		
					Be. Cu., .000015 Gold	60598-8	60598-9	60789-8		
					Phos. Brz., .000015 Gold	60598-6	1-60598-0	—		
					Phos. Brz.	—	1-60598-1	—		
					Be. Cu.	—	1-60598-2	—		
E	24-20	.060-.090	.155	.395	Phos. Brz., Pre-Tin	60939-1	60940-1	60986-1	90221-1	452383-2
					Be. Cu., Tin	60939-2	60940-2	—		
					Phos. Brz., .000030 Gold	60939-3	—	—		
					Be. Cu., .000030 Gold	60939-4	60940-4	—		
F	26-22	.035-.065	.160	.330	Be. Cu., .000015 Gold	61513-1	—	350189-2	90131-2	
					Phos. Brz., Pre-Tin	61513-2	—	350189-1		
F	24-20	.045-.070	.160	.330	Be. Cu., .000015 Gold	—	61119-1	61276-1	90204-1	453850-1
					Phos. Brz., Pre-Tin	—	61119-2	61276-2		
					Be. Cu., Tin	—	61119-3	61276-3		
F	24-20	.040-.100	.160	.335	Phos. Brz., Pre-Tin	61323-1††	—	—	90224-1	
					Be. Cu., Tin	61323-2††	—	—		
F	24-20	.045-.070	.160	.312	Phos. Brz., Pre-Tin	61586-1†	—	—	—	—
G	Tinsel Wire	.030-.040	.155	.380	Phos. Brz., Pre-Tin	350393-1	—	—	—	—

.093 Diameter Pin Receptacles

Type	Wire Size	Insulation Diameter	E	L	Material & Finish	Part Numbers: For Standard Applicator	For Miniature Applicator	Loose Piece	Hand Tool	Insertion Tool
E	28-26	.032-.057	.255	.545	Phos. Brz., Tin	—	350221-1	—	—	—
E	22-18	.060-.110	.255	.550	Phos. Brz., Tin	61138-1	61291-1	61260-1	90135-2	452383-3
					Be. Cu., Tin	61138-2	61291-2	—		
E	22-18	—	.255	.435	Phos. Brz., Pre-Tin	350015-1	—	—	—	—

†(61586-1, 61160-1) Plain Receptacle Barrel, No Embossments, Slots or Detents
††(61323-1, 61323-2) Has Overlap Insulation Crimp.

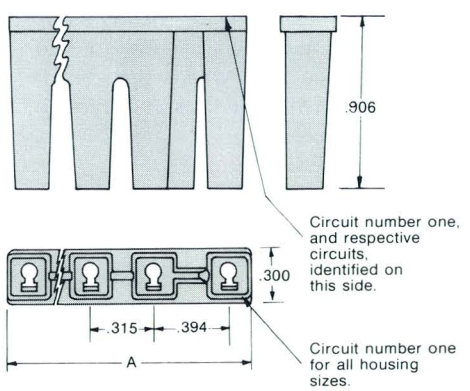
.093 Pin Receptacle and Housing

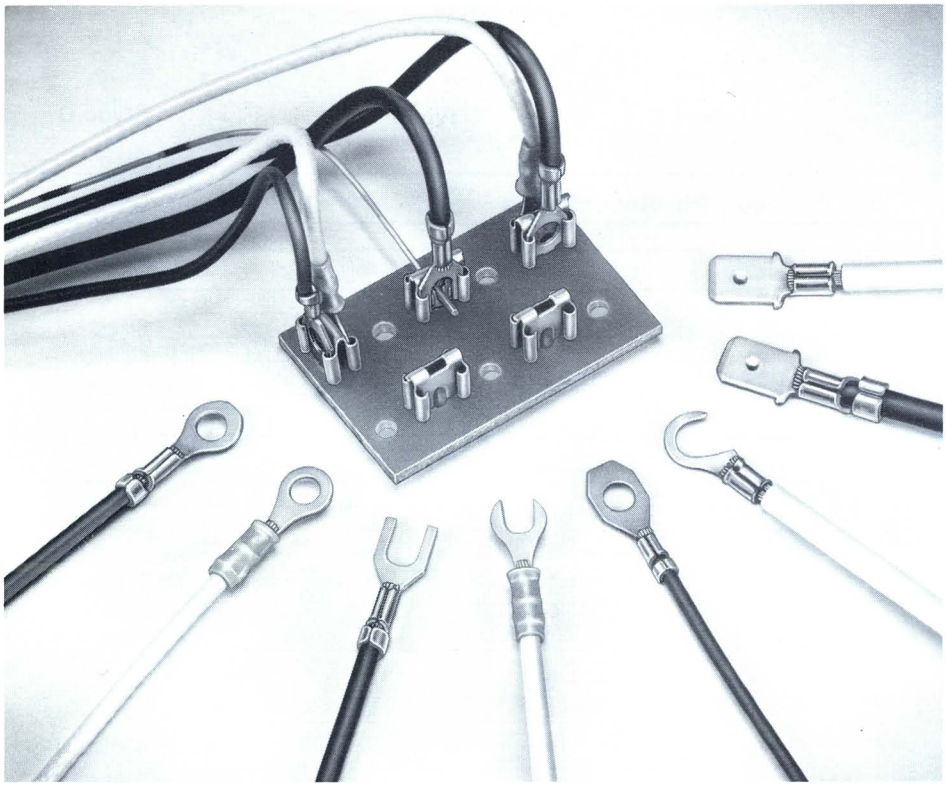


Wire Size: 24-20
Insulation Diameter: .060-.110
Material and Finish: Brass, Pre-Tin
Part Number: 350343-1

Housings
Material: Nylon

Number of Circuits	A	Part Number
1	.236	350342-1
2	.630	350342-2
3	.945	350342-3
4	1.260	350342-4
5	1.575	350342-5
6	1.890	350342-6





Printed Circuit Board (PCB) Receptacle

The PCB receptacle is used to connect wires to printed circuit boards. The wires may be terminated with various terminals, or they may be unterminated.

The receptacle has applications in all industries from automotive to computer, both in new equipment and existing equipment to enable field replacement without costly retrofitting. In new equipment the PCB receptacle can be used to give a flexible means of connection. For instance, it could be used on motors to replace the screw and nut arrangement used for changing voltages and direction of rotation, or on the back of TV sets for the antenna lead-in. In existing equipment, the receptacle can be used for field replacement where the original unit was wired with some type of terminal. In addition, it could easily be utilized in automotive voltage regulators, or in solid state control units where the original equipment is wired with a terminal. This receptacle allows you to plug the previously terminated wires into the new model without additional tooling.

The PCB receptacle is designed to save you money by being flexible: you can use it in new equipment to give you a versatile means of connection; and, you can use it in old equipment to allow field replacement of units without costly retrofitting. In all cases, installation is accomplished without tools. And, the receptacle is designed to be inserted into your board by high speed application equipment and wave soldered to give you the lowest possible applied cost.

Features

- Receptacles accept all .250 x .016 thick terminal configurations
- Receptacles available for .187 x .020 thick and .250 x .032 thick FASTON terminals
- Receptacles available for prep-less termination of 24-22 AWG solid wire using AMP's displation crimp technique
- Available in brass, tin plated brass, or pretinned brass versions
- No tooling needed to insert or remove terminals
- Receptacles accept terminals from the top, or through holes in the board from the bottom
- Continuous strip contacts allow high speed application with single or multiple-headed AMP insertion machines

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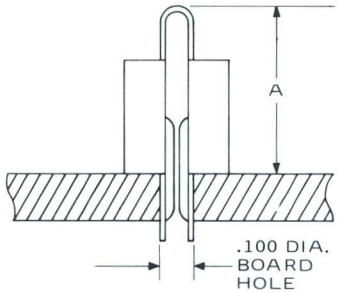
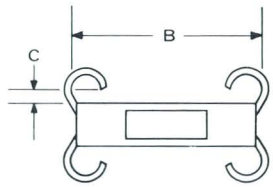
Specifications

Receptacles



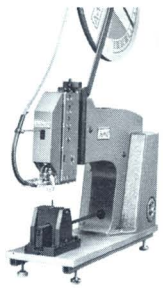


Accepts	Dimensions A	B	C	Stock	Finish	Receptacle Part Numbers For Modular Insertion Tooling	For 'U' Press Insertion Tooling
.250 x .016 terminals	.280	.272	.012	.010 brass	None	62110-1	62111-1
					Tin	62110-2	62111-2
					Pre-tin	62110-3	62111-3
.250 x .016 terminals and AWG No. 24-22 solid wire	.280	.272	.012	.010 brass	None	62173-1	62199-1
					Tin	62173-2	62199-2
					Pre-tin	62173-3	62199-3
.187 x .020 FASTON tab terminals	.360	.230	.014	.018 brass	None	62169-1	62171-1
					Tin	62169-2	62171-2
					Pre-tin	62169-3	62171-3
.250 x .032 FASTON tab terminals	.360	.297	.025	.018 brass	None	62170-1*	62172-1*
					Tin	62170-2*	62172-2*
					Pre-tin	62170-3*	62172-3*

*For $.123^{\pm.002}$ board hole only

Application tooling

PCB receptacles may be applied in automatic or semi-automatic machines using AMP modular insertion machines or 'U' press insertion machines.

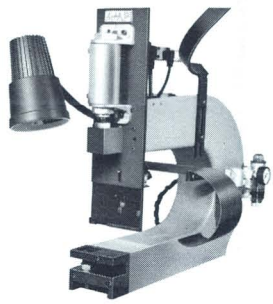


AMP Single Head Insertion Machine

This machine is for processing a single printed circuit board, and is the starting level in the full line of AMP modular insertion equipment. Featuring a quick-change design, the insertion head can be changed in a matter of minutes to afford users maximum flexibility in applying products to a P.C. board, and minimum production downtime for product changeovers. With a simple change of the head, other products such as DIP and I.C. receptacles, AMPMODU or wrap-type posts, bobbin-type tabs, etc., may be inserted into your board. Several versions are available for use in any level of production equipment, from prototype runs and start-up production, to assembly line models. Template controlled and two-orientation models further extend the range of uses.

AMP DNC Triple Head Insertion Machine

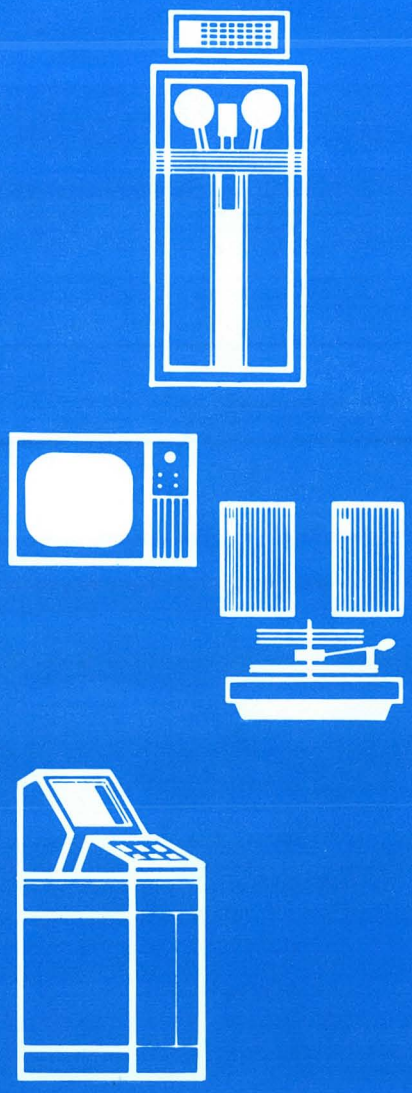
This machine is for processing three identical P.C. boards simultaneously, and like the single head version, it is available in several models to adapt to any level of production. Template controlled and two-orientation models are available, as well as direct numerical controlled models, in which the operator merely loads empty boards and removes loaded boards. Alternative loading positions are available so that three empty boards may be loaded while the machine is processing three other boards.

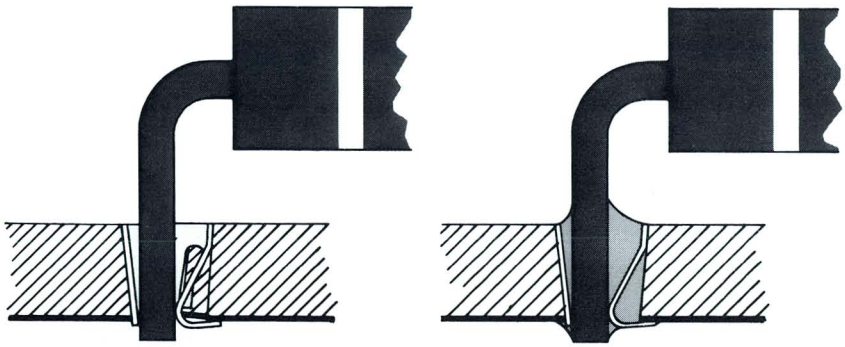


AMP Printed Circuit Board Insertion Machine

Designed to process a single board, this lightweight, quiet machine features simplicity of design: a simple one-stroke action shears and inserts the receptacle. This feature not only assures long, trouble-free service, but also makes the machine easy to operate and maintain. The 12" deep throat "U" press allows the machine to accommodate large PC boards. Its ability to accept a variety of quick-change inserter applicators allows fast production requirement changes.

AMP
Printed Circuit Board
Fillet





Retention latch features
component lead/fillet
retention capabilities

Improved solder wicking

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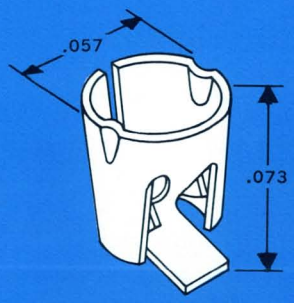
The increasing use of the printed circuit boards in today's consumer electronic products has created a demand for greater speed, economy and reliability in pc board production, particularly the phase that involves the assembling of electronic components to the boards.

The AMP Printed Circuit Board Fillet and the AMP-O-MATIC Fillet Insertion Machine are designed to meet today's requirements for greater production volume and economy while providing a substantial improvement in overall product quality.

The AMP fillet is a conical shaped metallic liner that is stamped and formed from pre-tinned brass. It accommodates component leads with diameters from .015" to .035" and inserts into an .057"–.068" thick board that contains drilled holes or punched holes of the configuration shown. Miniature in size, the fillet allows center-to-center hole spacing in a board as close as .110" nominal. It features many design and performance characteristics, including: a funnel-shaped target area for fast and easy lead insertion; a design that uses the inherent spring-back memory of the metal to firmly hold the fillet in the board; a dual functioning retention latch to grip the lead and engage the bottom of the board providing firm retention for both the fillet and the component lead; an anti-overstress feature to prevent overstressing of the retention latch when the larger diameter component leads are inserted; plus a unique overall design to induce solder wicking by capillary action which provides an excellent mechanical and electrical connection between the board and the component lead.

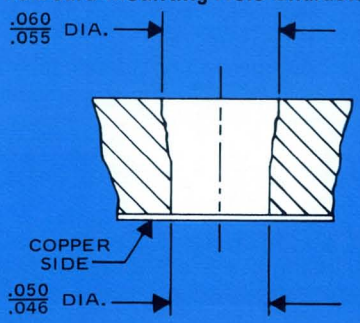
The AMP fillet is available in loose piece form for its automated insertion into a pc board. The AMP-O-MATIC Fillet Insertion Machine employs a vibration and multiple-punch method of loading fillets into a board. This automated "mass loading" technique provides you with increased production volume at an overall lower applied cost. A unique feature of this bench-mounted machine is that its production capacity is unaffected by the number of holes in the board or the hole pattern—up to 800 fillets can be simultaneously loaded into a pc board in less than one minute.

Specifications

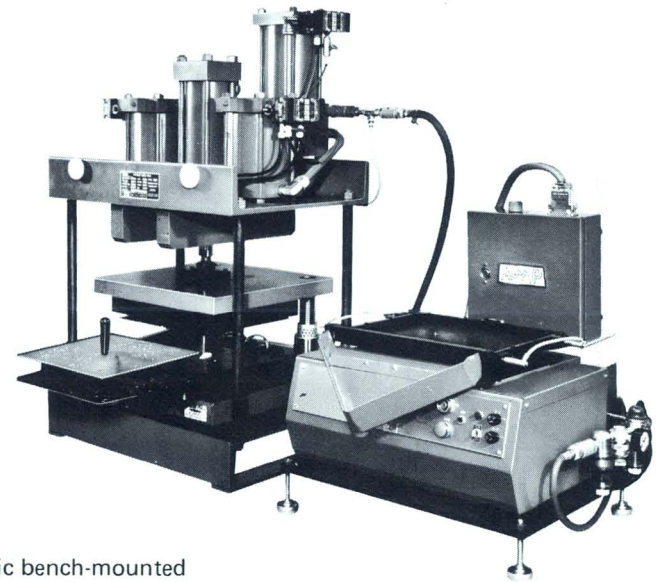


Part No. – 61448-1
Material – .005 Brass
Finish – Pre-tin

Pc Board Mounting Hole Characteristics



NOTE: The recommended punched hole characteristics shown above are representative of pc boards made of XXXP material. Boards made of other materials may necessitate slight variations of the hole configuration.



AMP-O-MATIC Fillet Insertion Machine

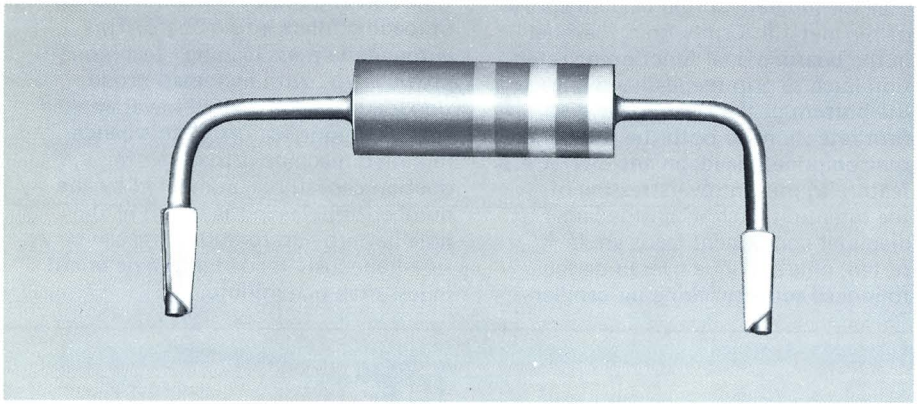
This semi-automatic bench-mounted machine is designed to provide a fast, efficient, yet simple means of "mass loading" loose piece fillets into a pc board. Through the use of this high-volume production machine, as many as 800 fillets can be simultaneously loaded into a board in less than 60 seconds.

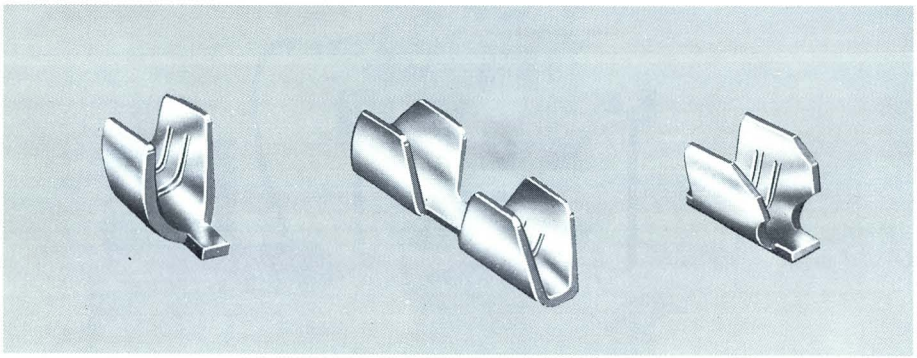
The complete loading process is accomplished in a two-step operation that requires minimum operator training and virtually eliminates human error. The loose piece fillets are simply spread onto a vibratory unit containing a template with the desired hole pattern. The template is then vibrated until each hole is loaded with a metallic liner. After this phase of operation, excess fillets are automatically removed and the template and board are manually inserted into a hydraulic press. The press uses punch pins, arranged in the same pattern as the template, to force-fit the fillets into the board at the proper depth. The entire two-phase operation of "mass loading" fillets into a board using the vibration and multiple-punch technique is accomplished in less than one minute—regardless of board size, the quantity of holes in the board, and the specific hole pattern.

Versatile, as well as economically efficient, the AMP-O-MATIC Fillet Insertion Machine can accommodate virtually any hole pattern within an area of 11" x 14". Also, by use of a punch pin selection method, job changeovers for accommodating various circuit arrangements can be readily achieved.

These features of the AMP-O-MATIC Fillet Insertion Machine combine to substantially increase production volume, provide assurance of highest product quality, and establish lower production costs.

Interconnection Devices and Accessories





CIRCUITIP Terminals

The AMP CIRCUITIP Terminal is designed to provide a quick and efficient means of mounting electronic components onto printed circuit boards . . . with or without eyeletting or plating through. When crimped to a component lead, it creates a special tip that allows the component to be self-retaining to the pc board before and during soldering. The terminal also features a tapered design which aids capillary action and promotes uniform solder fillets and heat dissipation. Use of AMP's CIRCUITIP Terminal, too, permits standardization of board hole sizes. Only one hole size is normally required for mounting all components onto the board.

For added versatility, the terminal can be applied to solid and stranded wire as well as to the ends and center of component leads. It can also be employed as a miniaturized splice for electrically and mechanically terminating leads to miniature bulbs, sensors, etc.

CIRCUITIP Terminals are available in three basic styles, including a needle nose (with and without insulation support) and a blunt nose. This entire product line provides capabilities for accepting a wide range of component lead and wire sizes—.008″ to .047″—plus board hole diameters ranging from .045″ to .072″. All terminals are stamped and formed from high quality brass stock and are furnished in reeled strips for high-speed termination using the AMP-O-LECTRIC Machine. Two AMP Hand Insertion Tools are available for installing single- and triple-lead components into boards.

Features

- Board hole standardization—normally one size needed for mounting all components on a board.
- Eliminates need for plated-through and eyeletted holes.
- Tipped components are self-retained in board before and during soldering.
- Tapered design aids capillary action, promotes uniform solder fillets and serves as heat sink to protect components.
- Permits bridging and offsetting of components for better air circulation, cooler unit operation.
- Can be applied to ends and center of component leads and to solid or stranded wire.
- Can be used as a splice.
- Accommodates wide range of component lead and wire sizes—.008″ to .047″.
- Three styles available, including insulation support version.
- Accepts board hole diameters from .045″ to .072″.
- High-speed machine crimping for volume production at lowest installed cost.
- Hand tools available for inserting single- and triple-lead components.

Dimensioning:
All dimensions in inches.

Specifications subject to change.
Consult AMP Incorporated for latest design specifications.

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Specifications

Terminal Style	Wire Range (AWG) .072 Dia. Hole	.063 Dia. Hole	.057 Dia. Hole	.052 Dia. Hole	.045 Dia. Hole	Stock Thk.	Terminal Number	Insertion Tools Single Lead	Triple Lead
NEEDLE HOSE	.018–.035	.010–.025	—	—	—	.016	42028-2	802895-1	802896-1
	—	.035–.047	.030–.047	.010–.035	—	.008	42343-3		
	.025–.041	.020–.035	.010–.030	—	—	.014	42408-3		
NEEDLE NOSE WITH INSULATION SUPPORT	—	—	—	.032–.041	.010–.032	.008	60902-3	—	—
BLUNT NOSE	.025–.047	.015–.030	.008–.025	—	—	.014	41965*	802895-1	—

*CIRCUITIP Terminal No. 41965 is supplied tin plated. All others are pre-tin lead plated.

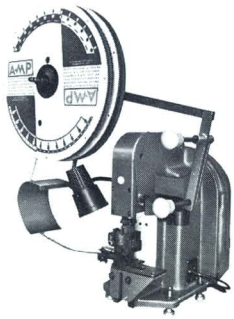
Hand Insertion Tools

Two AMP tools are available for the hand insertion of tipped components into printed circuit boards. Both are similar in design to the taper pin insertion tools. One tool inserts single leads of standard components; the other simultaneously inserts the three leads of transistors.

Single-Lead Insertion Tool

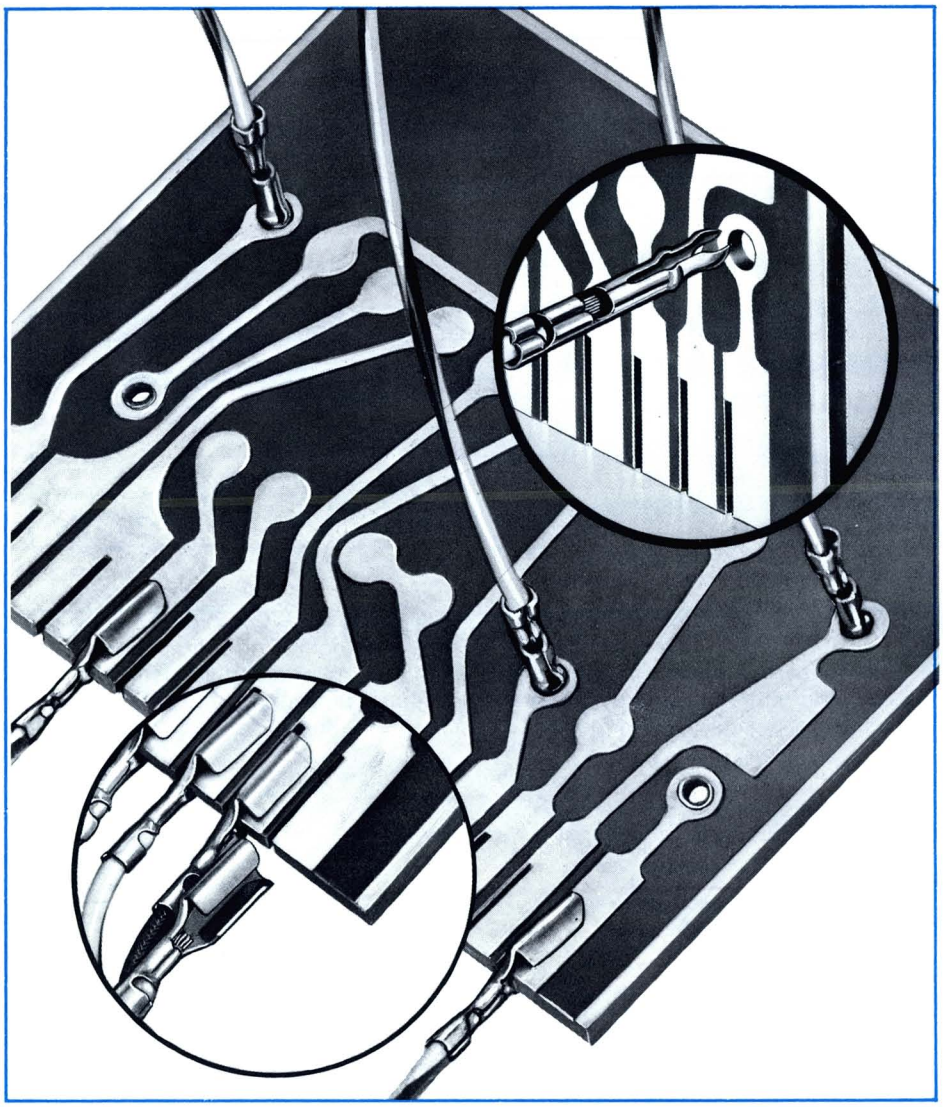
Triple-Lead Insertion Tool

Application Tooling



AMP-O-LECTRIC Terminating Machine

This bench-mounted unit operates on standard factory electrical power and is designed to crimp CIRCUITIP Terminals to the leads of single-piece components. Its fast cycling time and precision crimping dies assure uniform quality terminations at rates of up to 2000 an hour.



AMP-IN and AMP EDGE Single Lead Printed Circuit Terminals

AMP-IN Terminals
are designed to facilitate and speed up the preparation of printed circuit leads prior to solder dipping. When inserted, the terminal's pin tip spreads apart and exerts sufficient pressure to enable the pin to stand firmly in place until solder dipping is completed.

Through the use of AMP-IN Terminals, leads can be brought to boards in one quick assembly operation. There is no danger of solder bridging and never any danger of solder wicking damage to stranded conductors. Also, the AMP-IN Terminals impart firm support to wire insulation insuring ample vibration and shock resistance.

AMP EDGE Terminals
are quick connect/disconnect devices that adjust securely, through friction fitting, to machined slots in the type of board for which they are designed. Friction fitting not only pre-cleans the contact areas, but also provides excellent vibration and shock resistance even under heavy stresses. Firm wire insulation support is a companion factor for positive retention in the board. AMP EDGE Terminals, wholly aerated to eliminate moisture traps, may be applied anywhere on the perimeter of the board. They eliminate the need for eyelets and plated-through holes on two-sided boards and can be used back-to-back for commoning circuits.

Features

AMP-IN Terminals

- Fast, economical lead preparation for pc board soldering.
- Self-retaining in .072" diameter holes; board thicknesses — .062" and .093".
- Available for wire sizes No. 22-20 AWG and No. 20-18 AWG.
- High quality brass material; wide choice of finishes.
- Vibration and shock resistant.
- Precision hand tool crimped or high-speed machine terminated for volume production at lowest installed cost.

AMP EDGE Terminals

- Friction fitting, quick connect/disconnects — no insertion and extraction tools required.
- Excellent vibration and shock resistance.
- Available for wire sizes ranging from No. 32 to 16 AWG.
- Wide choice of materials and finishes.
- Terminal sizes accommodate .040", .047", .062" and .093" thick boards.
- Precision hand tool crimped or high-speed machine terminated for volume production at lowest installed cost.

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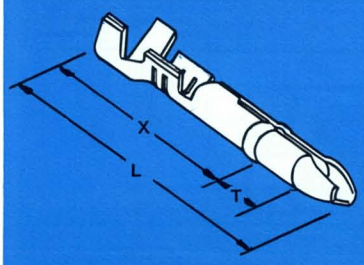
AMP-IN Terminals



Specifications

Terminal	Material	Finish	Wire Size	Ins. Dia. (Max.)	Board Thk.	Board Hole Dia. ±.002	T	L	X	Hand Tool Number
42335-3	Brass	Pre-Tin Lead	22-20	.100	.062	.072	.062	.545	.405	46190 S.H. or 90077 L.H.
42335-4	Brass	Silver	22-20	.100	.062	.072	.062	.545	.405	
42642-3*	Brass	Pre-Tin Lead	22-20	.100	.062	.072	.062	.545	.405	
42658-3	Brass	Pre-Tin Lead	22-20	.100	.093	.072	.093	.545	.377	
42658-4	Brass	Gold	22-20	.100	.093	.072	.093	.545	.377	
42658-5*	Brass	Pre-Tin Lead	22-20	.100	.093	.072	.093	.545	.377	
350017-1	Brass	Tin	22-20	.100	.062	.072	.062	.545	.405	
60832-1	Brass	Pre-Tin Lead	20-18	.105	.062	.072	.062	.545	.405	47042 L.H.
60832-2*	Brass	Pre-Tin Lead	20-18	.105	.062	.072	.062	.545	.405	

*Terminals are reverse-reeled for use in Miniature Applicator.
S.H. denotes Short Handle Tool.
L.H. denotes Long Handle Tool.

AMP EDGE Terminals

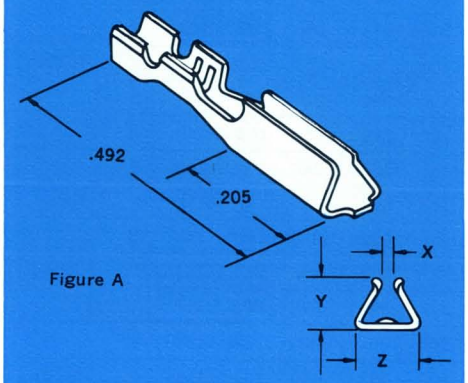


Figure A

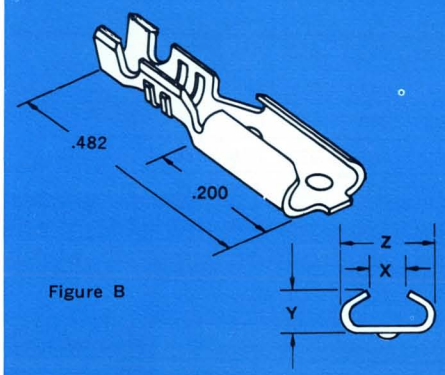


Figure B

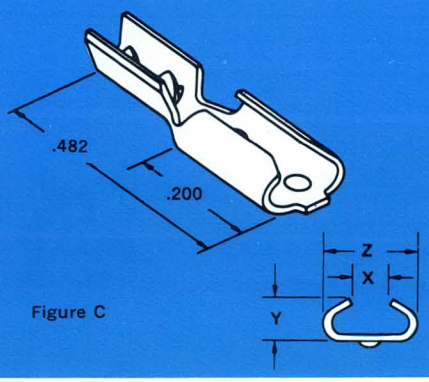


Figure C

	Terminal	Stock Thk.	Material	Finish	Wire Size	Ins. Dia.	Board Thk.	X	Y	Z	Fig.	Hand Tool Number
†	60602-2	.012	Phos. Bronze	Tin	26-22	.040-.055	.040	.033	.095	.115	A	None
†	60603-2	.012	Phos. Bronze	Tin	20-16	.085-.105	.040	.033	.095	.115	A	47043
☒	61389-1	.010	Brass	Tin	32-24	.020-.050	.062	.045	.080	.153	B	None
☒	61389-2	.010	Phos. Bronze	Tin	32-24	.020-.050	.062	.045	.080	.153	B	
☒	61455-1	.010	Brass	Tin	30-22	.075 Max.	.062	.046	.080	.153	B	90204-2
☒	61455-2	.010	Phos. Bronze	Tin	30-22	.075 Max.	.062	.046	.080	.153	B	
☒	60518-1	.010	Brass	Tin	22-20	.075 Max.	.047	.037	.071	.153	B	48698
☒	60518-2	.010	Be. Cu.	Tin	22-20	.075 Max.	.047	.037	.071	.156	B	
☒	42263-1	.010	Brass	None	22-20	.075 Max.	.062	.050	.080	.153	B	
☒	42263-2	.010	Brass	Tin	22-20	.075 Max.	.062	.050	.080	.153	B	
☒	42263-3	.010	Brass	Silver	22-20	.075 Max.	.062	.050	.080	.153	B	
☒	42263-4	.010	Be. Cu.	None	22-20	.075 Max.	.062	.050	.080	.153	B	
☒	42263-5	.010	Be. Cu.	Tin	22-20	.075 Max.	.062	.050	.080	.153	B	
☒	42263-6	.010	Brass	Gold	22-20	.075 Max.	.062	.050	.080	.153	B	
☒	42263-7	.010	Phos. Bronze	Tin	22-20	.075 Max.	.062	.050	.080	.153	B	
☒	42264-2	.010	Brass	Tin	22-20	.075 Max.	.093	.080	.075	.167	B	
☒	42264-3	.010	Phos. Bronze	Tin	22-20	.075 Max.	.093	.080	.075	.167	B	
☒	42264-5	.010	Brass	Pre-Tin Lead	22-20	.075 Max.	.093	.080	.075	.167	B	
☒	42264-6	.010	Brass	Gold	22-20	.075 Max.	.093	.080	.075	.167	B	
☒	60606-1	.010	Brass	Tin	—	.045-.060	.062	.050	.080	.153	C	None

† (1) Dimple inside (.008 high)
☒ (2) Dimples outside (.010 high)

AMP EDGE Terminals (Cont.)

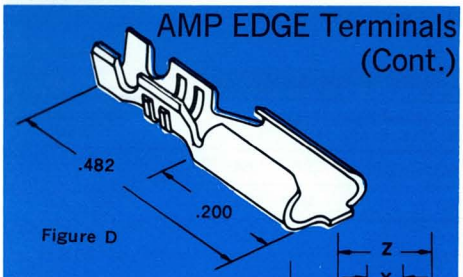


Figure D

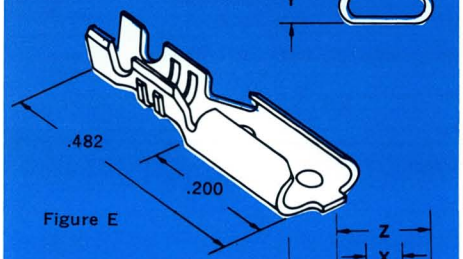


Figure E

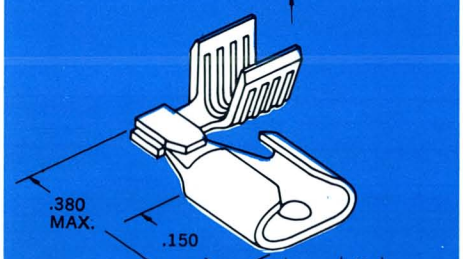


Figure F

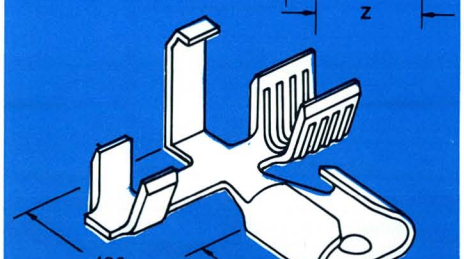


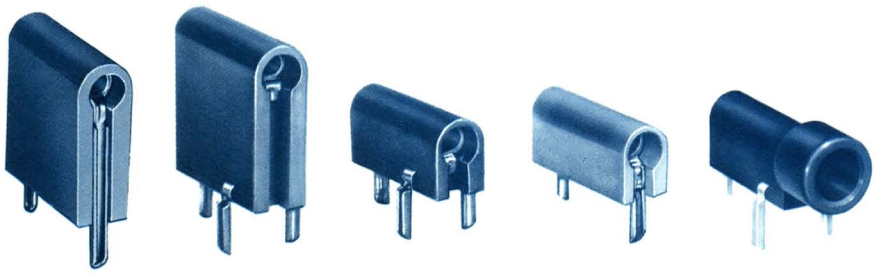
Figure G

Figure H

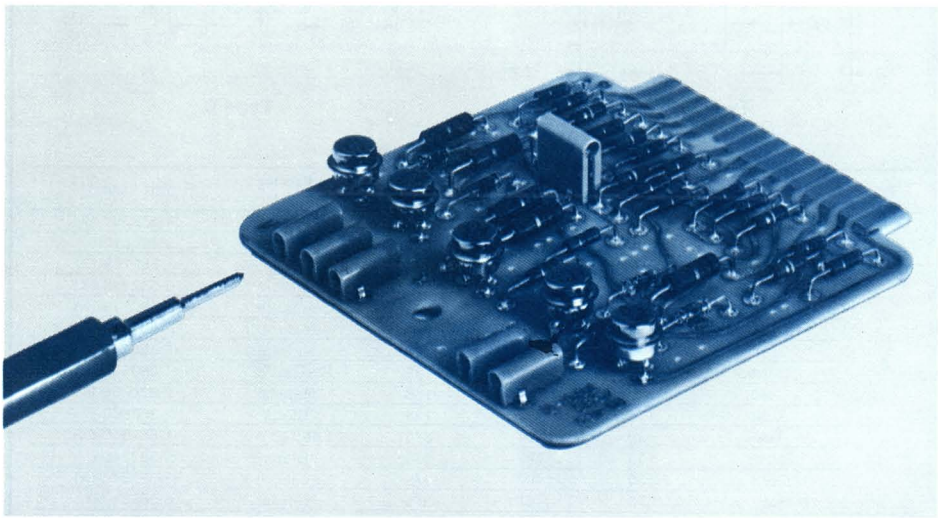
Specifications (Continued)

	Terminal	Stock Thk.	Material	Finish	Wire Size	Ins. Dia.	Board Thk.	X	Y	Z	Fig.	Hand Tool Number
●	42469-1	.010	Brass	None	22-20	.075 Max.	.062	.050	.080	.153	D	
●	42469-2	.010	Brass	Tin	22-20	.075 Max.	.062	.050	.080	.153	D	
●	42469-3	.010	Brass	Silver	22-20	.075 Max.	.062	.050	.080	.153	D	
●	42469-4	.010	Be. Cu.	None	22-20	.075 Max.	.062	.050	.080	.153	D	
●	42469-5	.010	Be. Cu.	Tin	22-20	.075 Max.	.062	.050	.080	.153	D	
●	42469-6	.010	Brass	Gold	22-20	.075 Max.	.062	.050	.080	.153	D	
△	42587-1	.010	Brass	None	22-20	.075 Max.	.062	.050	.080	.153	E	
△	42587-2	.010	Brass	Tin	22-20	.075 Max.	.062	.050	.080	.153	E	48698
△	42587-3	.010	Brass	Silver	22-20	.075 Max.	.062	.050	.080	.153	E	
△	42587-4	.010	Be. Cu.	None	22-20	.075 Max.	.062	.050	.080	.153	E	
△	42587-5	.010	Be. Cu.	Tin	22-20	.075 Max.	.062	.050	.080	.153	E	
△	42587-6	.010	Phos. Bronze	Tin	22-20	.075 Max.	.062	.050	.080	.153	E	
△	42587-7	.010	Brass	Gold	22-20	.075 Max.	.062	.050	.080	.153	E	
△	42588-2	.010	Brass	Tin	22-20	.075 Max.	.093	.080	.075	.167	E	
△	42588-3	.010	Brass	Silver	22-20	.075 Max.	.093	.080	.075	.167	E	
△	60480-1	.010	Brass	None	22-20	.080-.100	.093	.080	.075	.167	E	
△	60480-2	.010	Brass	Tin	22-20	.080-.100	.093	.080	.075	.167	E	
△	60002-1	.010	Brass	None	22-20	.080-.100	.062	.050	.080	.153	E	46190
△	60002-2	.010	Brass	Tin	22-20	.080-.100	.062	.050	.080	.153	E	
△	60002-3	.010	Phos. Bronze	Tin	22-20	.080-.100	.062	.050	.080	.153	E	
△	61279-1	.010	Brass	Tin	26-22	.075 Max.	.062	.046	.080	.153	E	
△	61561-1	.010	Brass	Tin	20-18	.080-.100	.062	.046	.080	.153	E	None
□	61319-1	.010	Brass	None	30-22	.075 Max.	.062	.046	.080	.153	E	
□	61319-2	.010	Brass	Tin	30-22	.075 Max.	.062	.046	.080	.153	E	90204-2
□	61172-1	.010	Phos. Bronze	Gold	26-22	.075 Max.	.093	.076	.075	.167	E	
□	60019-1	.010	Brass	None	22-20	.080-.100	.062	.050	.080	.153	E	
□	60019-2	.010	Brass	Tin	22-20	.080-.100	.062	.050	.080	.153	E	46190
□	60019-3	.010	Be. Cu.	Tin	22-20	.080-.100	.062	.050	.080	.153	E	
‡	60069-1	.016	Brass	None	22-20	.080-.100	.062	.052	.088	.160	E	90203-1
‡	60069-2	.016	Brass	Tin	22-20	.080-.100	.062	.052	.088	.160	E	
‡	60156-1	.016	Brass	None	20-18	.080-.100	.062	.052	.088	.160	E	
‡	60156-2	.016	Brass	Tin	20-18	.080-.100	.062	.052	.088	.160	E	46412
‡	60156-3	.016	Phos. Bronze	Tin	20-18	.080-.100	.062	.052	.088	.160	E	
○	60704-1	.016	Brass	Tin	20-18	.080-.100	.062	.056	.088	.160	E	None
○	60704-2	.016	Be. Cu.	Tin	20-18	.080-.100	.062	.056	.088	.160	E	90027
■	60741-1	.012	Brass	Tin	22-16	—	.093	.080	.095	.200	F	
■	60787-1	.012	Brass	Tin	22-16	—	.062	.050	.070	.200	F	None
O	61329-1	.012	Brass	Tin	22-16	.065-.100	.062	.046	.070	.200	G	
O	61782-1	.012	Brass	Tin	22-16	—	.062	.046	.070	.200	H	

● No dimples
△ (2) Dimples inside (.020 high)
□ (2) Dimples inside (.010 high)
‡ (2) Dimples inside (.014 high)
○ (2) Dimples inside (.005 high)
■ (2) Dimples inside (.008 high)
O (2) Dimples inside (.023 high)



Bi-Leg Mount | Tri-Leg Mount | Tri-Leg Mount | Bi-Leg Mount | Tri-Leg Mount



AMP Test Probe Receptacles

AMP's line of Test Probe Receptacles is designed with this specific motive: to permit low cost test probe of circuits on printed circuit boards, without interruption of operating currents, with precise reliability.

The AMP Test Probe Receptacle is available with either two or three mounting legs. Two legs of a tri-leg mount are not part of the live testing circuit. They are also available either in the standard height, or in a taller height (to permit probing at any position on the board where clearance to probe is necessary.) The three-leg mount gives maximum stability. The two-leg mount yields maximum density.

The present line of test probe receptacles fits a range of board thicknesses from 1/32" to 1/8" depending on the length of the receptacle legs. The legs mount in .052" diameter holes.

Electrical and Mechanical Characteristics

Millivolt Drop: 4 MV @ 4 amperes.

Insulation Resistance: 10,000 megohms.

Corona Starting Voltage: 1,000 volts @ sea level.

Voltage Breakdown: 2,500 volts @ sea level (corrosion, moisture resistance, thermal shock, vibration, mechanical shock, insulation resistance tests in accordance with MIL-STD-202).

Nylon Housing: Rated for 105°C.

Retention Value: 16 oz. with nominal .080" probe.

Features

- Leg mounts are "V" shaped to promote solder wicking and consistent fillets.
- Housings available in 10 colors and natural; color is molded, not dyed.
- Receptacle is recessed in housing to prevent shorting or flashover.
- Probe may be inserted in either end of test probe receptacle.

Note: All dimensions in inches.

Specifications subject to change. Consult AMP Incorporated for latest design specifications.

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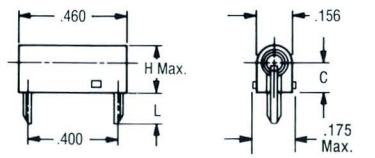
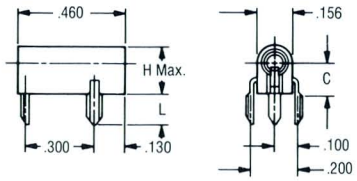
Test Probe Receptacle Specifications



Type A



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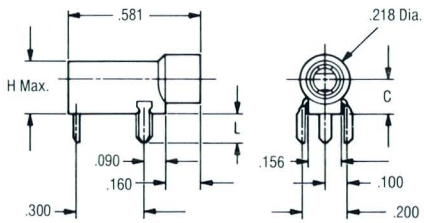
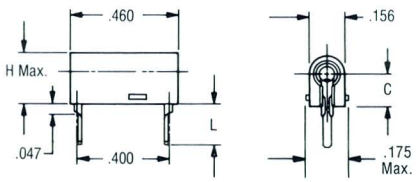


Type C



Type D

Type	Insert Finish	Dimensions L	H	C	Housing Color	Part Number**
A	Gold	.075	.230	.138	See table X	1-380807-(X)
	Gold	.110	.230	.138	Green	3-380812-5
	Tin	.130	.230	.138	See table X	1-582118-(X)
	Silver	.130	.230	.138	See tabie X	2-582118-(X)
	Gold	.130	.230	.138	See table X	3-582118-(X)
	Silver	.130	.230	.138	Natural	5-582118-9
	Gold	.130	.230	.138	Natural	6-582118-9
	Gold	.156	.230	.138	See table Y	1-380606-(Y)
	Gold*	.156	.230	.138	Natural	2-380606-0
	Gold	.156	.230	.138	Black	2-380606-1
	Tin	.130	.467	.375	See table X	1-582340-(X)
	Silver	.130	.467	.375	Black	2-582340-0
	Gold	.130	.467	.375	See table X	3-582340-(X)
	Gold	.130	.467	.375	Natural	6-582340-9
B	Gold	.130	.230	.138	See table X	3-582119-(X)
	Gold	.130	.230	.138	Natural	6-582119-9
	Gold	.130	.467	.375	See table X	3-582120-(X)
	Gold	.130	.467	.375	Natural	6-582120-9
C	Gold	.130	.230	.138	See table X	350180-(X)
D	Gold	.180	.230	.138	See table X	1-380736-(X)
	Gold	.180	.230	.138	Natural	2-380736-0
	Bright Tin	.180	.230	.138	Green	3-380736-5

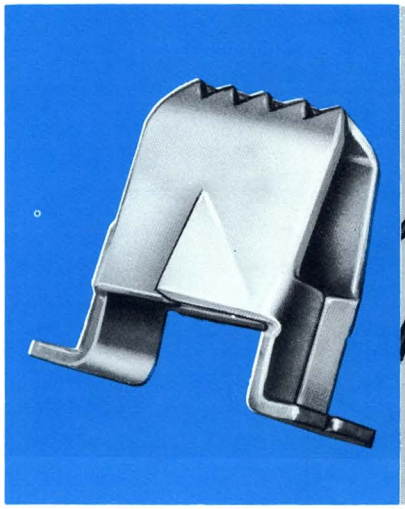
*Gold plating per MIL-G-45204B, Type I, Grade C, Class 3
**Part numbers with a numerical suffix are only for the specific color listed in the chart.

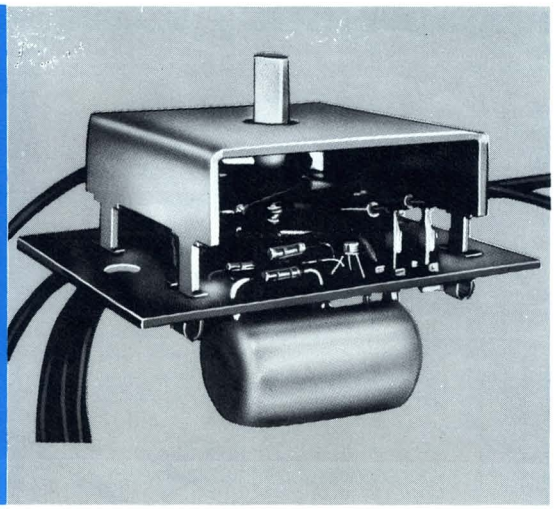
Color Suffix Tables

X COLOR CODE	
Suffix Dash Number	Housing Color
−0	Black
−1	Brown
−2	Red
−3	Orange
−4	Yellow
−5	Green
−6	Blue
−7	Violet
−8	Gray
−9	White

Y COLOR CODE	
Suffix Dash Number	Housing Color
−0	Natural
−1	Brown
−2	Red
−3	Yellow
−4	Green
−5	Orange
−6	Blue
−7	Violet
−8	Gray
−9	White

Note: "X" color table contains AMP designations;
"Y" color table contains RETMA designations



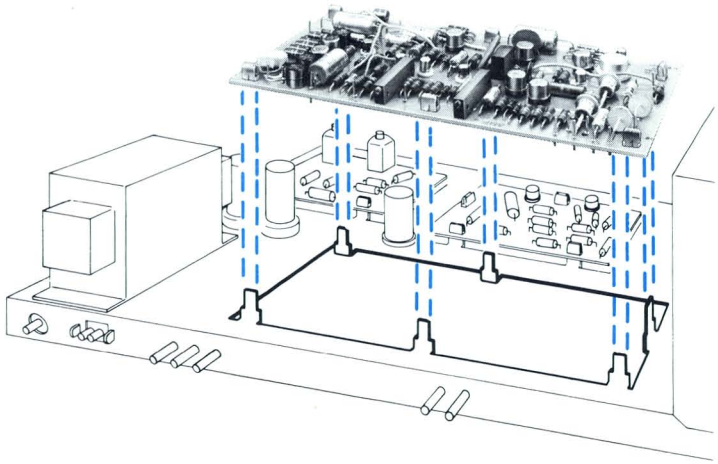


AMP Component Module Clip

This versatile product is equally useful as a mechanical fastening device and as an electrical ground for printed circuit boards. As a mechanical fastening device, the AMP Clip provides positive retention. It eliminates the need for multi-step assembly and accessory fastening parts. These clips cut substantially the time required to securely fasten a given item, such as the cover plate illustrated above.

As a printed circuit fastener and grounding device, it has no equal. Tedious eyelet insertion and hand soldering to the chassis tabs are eliminated. These clips provide excellent retention and immediately ground the board to the chassis.

In addition to the front-end assembly savings, either type clip offers maximum maintainability and serviceability. To service simply extract the board from the chassis – without time consuming unsoldering or expensive extraction tools. Once the maintenance has been made, the board snaps securely back in place. Down time is kept to a minimum.



Features

- Black oxide coated steel for mechanical fastening applications
- Ease of service and maintenance
- Mounting hole tolerance up to .010"
- Clip edge bites into/and pre-cleans chassis grounding tab
- Board instantly grounded
- Exceptionally high retention
- Accepts wide range of tab sizes

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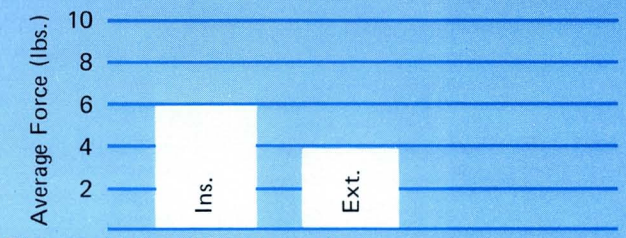
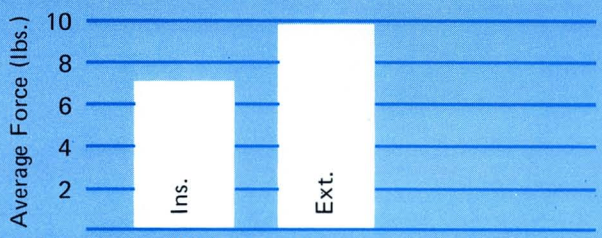
TEST DATA Insertion-Extraction Forces: Component Module Clip

Terminal: 61087
Tab: .040" to .045" thick cadmium-plated steel



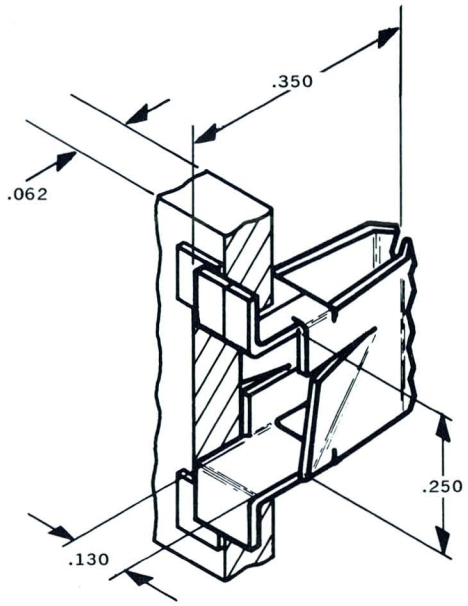
First insertion and first extraction

Terminal: 61088
Tab: .040" to .045" thick cadmium-plated steel

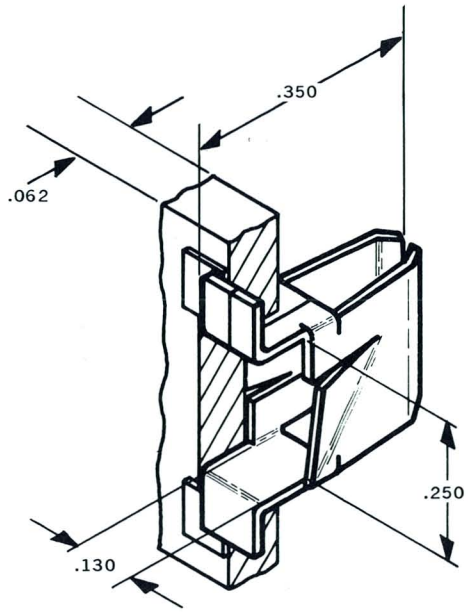


First insertion and first extraction

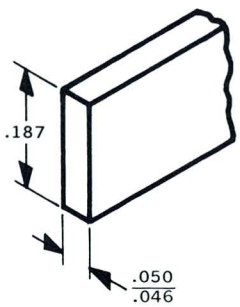
Note: A new tab was used with each sample tested.



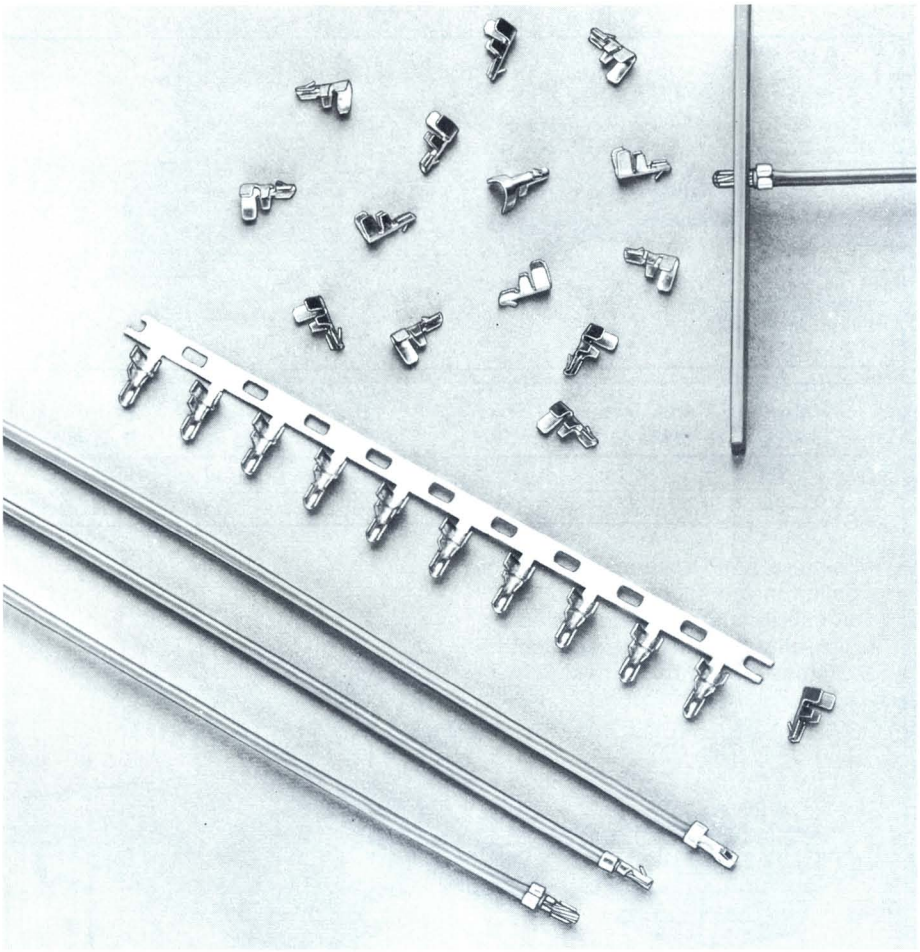
Part No. 61087-2; Black Oxide (Loose Piece)



Part No. 61088-2; Black Oxide (Loose Piece)



RECOMMENDED TAB DIMENSIONS



Miniature AMP-IN Terminals for Printed Circuit Boards

The miniature AMP-IN terminal is designed to enhance soldering of hookup wires to printed circuit boards. The combination of terminal and application tooling eliminates costly manual preparation of wires prior to soldering, and positions the wire to achieve reliable solder joints. Movement of the wire during soldering is restricted, assuring proper solder flow.

The terminal is made of brass, pre-tin lead plated, and consists of a "U" shaped nose with locking lance. The length of the terminal above the board is approximately .060", which in most cases is lower than any of the other types of components that are applied to the board.

The terminal is available in two wire ranges; No. 18 to 22 AWG and No. 22 to 26 AWG, with a .100" maximum insulation diameter.

When inserted, both the nose of the terminal and the wire strands are exposed beneath the bottom of the board, so that during flow soldering both the wire strands and the terminal are soldered. The terminal permits rugged handling of the pc board prior to flow soldering: the locking lance is positioned against the bottom of the board to prevent the wire from backing out before and during soldering. Also, the insulation support crimp provides strain-relief for the wire during handling of the boards. The insulation support crimp supports flexing of the hook-up wire during assembly and/or servicing to prevent damage of the wire or solder joint.

Features

- Eliminates manual preparation of wires prior to soldering into pc boards
- Low applied cost
- Total height above pc board is less than most other components; approximately .060"
- Available for No. 18 to 22 AWG and No. 22 to 26 AWG wire ranges
- Terminal locking lance holds wire in pc board for flow soldering
- Design allows both wire and terminal to be soldered and assures proper solder flow
- Insulation support provides strain-relief for wire and protection of solder joint

Note: All dimensions in inches.

Specifications subject to change. Consult AMP Incorporated for latest design specifications.

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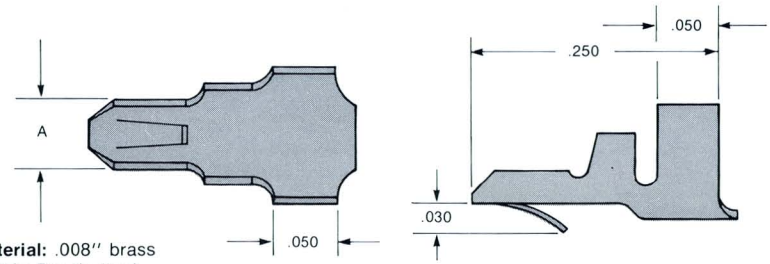
Miniature AMP-IN Terminals

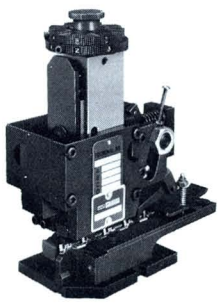


Material: .008" brass
Finish: Pre-tin lead

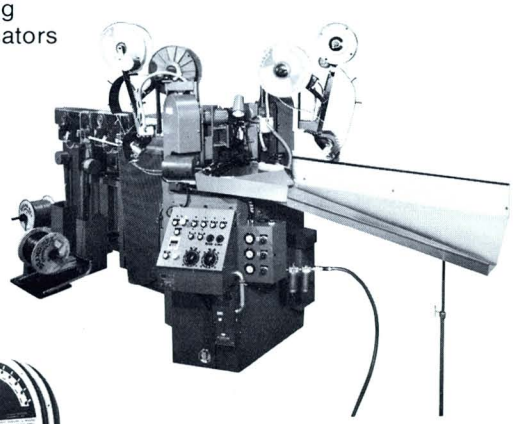
Wire Size Range (AWG)	Ins. Dia. (Max.)	Board Thk. (±.004)	Board Hole Dia. (±.004)	A	Terminal Part No.
18–22	.100	.062	.073	.065	350566-1
22–26	.100	.062	.055	.048	640108-1

Application Tooling

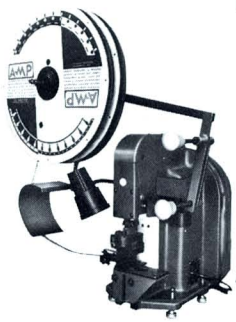
Miniature AMP-IN terminals may be applied in automatic or semi-automatic machines using quick-change miniature applicators to achieve low applied cost.



AMP Quick-Change Miniature Applicator



AMPOMATOR Machine



AMP-O-LECTRIC Machine

Quick-change miniature applicators minimize set-up time and complexity. They are used in the AMPOMATOR automatic lead making machine, which features fully automatic production of up to 5,700 double terminated leads per hour, with completely adjustable lead length, strip length and operating speed. These versatile applicators can also be used in the AMP-O-MATIC dual wire single end lead machine to produce up to 6,000 single-end terminated leads an hour, and in the AMP-O-LECTRIC terminating machine, which applies contacts to wire at rates up to 4,000 an hour, depending upon operator dexterity.

All adjustments are made rapidly with no significant machine downtime. The crimping height on both terminal barrel and insulation support for a given wire size is simply "dialed in".